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No. 3

# Florida State Horticultural Society Meets at Bradenton In April

By Bayard F. Floyd Secretary

The Fortieth Annual meeting of the Florida State Horticultural Society opens in Bradenton at eight thirty P.M. on Tuesday, April twelfth and continues until the morning of Friday, April fifteenth.

A varied program is being prepared that will be of particular interest to the citrus and vegetable growers and to those interested in the growing of flowers, trees and shrubbery for home ornamentation.

Dr. P. H. Dorsett of the Office of Foreign Seed and Plant Introduction, United States Department of Agriculture, has been invited to give the opening address on Tuesday evening, April twelfth. Dr. Dorsett and his son have just returned from two and one-half years of exploration in China and the South Sea Islands where they have been gathering seeds and plants for introduction into the United States, and they have brought back with them much material that will be of interest to Florida. He has a fine lot of slides as well as films that were taken on the trip and which will be used to illustrate his address.

Another Far Eastern traveler who will attend the meeting and tell of his travels is Dr. W. T. Swingle, of the Office of Crop Physiology and Breeding Investigations and stationed at Indio, California. He has just

returned from China and Japan where he has been studying citrus culture in these countries. Dr. Swingle is well known to many Floridians, having spent several years in the State in charge of a citrus experiment station for the United States Department of Agriculture.

A portion of the program this year will be devoted to the discussion of vegetable crops. This is done particularly on account of the meeting in one of the most important of the winter vegetable centers in Florida. The various phases of citrus culture and marketing will be given their usual consideration and it is likely that much new information of value to the citrus growers will be presented. A number of speakers who are interested in the growing of citrus fruits and in their marketing have been invited to speak.

The production of early fruit by cultural and artificial means will be discussed. There will also be a full discussion of the effects of the recent cold upon the trees and fruit that will include that of the future handling of the trees and fruit.

The headquarters of the meeting will be at the Dixie Grand Hotel in Bradenton. There are a number of other first class hotels and any wishing outside reservations can obtain same by writing N. A. Reasoner, at

Oneoco, Florida, who is the Chairman of the local arrangements.

The Bradenton Chamber of Commerce is very anxious to show the members some of the fine points of their city, the beach and the back country, and time will be allowed from the program for this entertainment.

The officers of the Society are:  
L. B. Skinner, President, Dunedin.  
W. J. Krome, Vice-President, Homestead.

S. F. Poole, Vice-President, Lake Alfred.

Wm. Sessions, Vice-President, Bonifay.

Bayard F. Floyd, Vice-President, Davenport.

W. W. Yothers, Asst. Secretary, Orlando.

N. A. Reasoner, Treasurer, Oneoco.  
Members of Executive Committee:  
W. E. Sexton, Vero.  
E. L. Lord, Gainesville.  
Ed. L. Ayers, Sarasota.

Anyone interested in the growing of plants in Florida is eligible for membership, and membership can be obtained by sending a letter of application and the membership fee of \$2.00 to Bayard F. Floyd, Secretary, at Davenport, Florida.

Many new people have come into the state in the last few years who

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*Fla State Horticultural Society*

# *Citrus & nuts Fla*

# The Elimination of Waste In the Citrus Industry

By E. L. Lord, Professor of Horticulture, Florida College of Agriculture

A survey of the Florida citrus industry with the idea of emphasizing the sources of waste degenerates largely into a simple enumeration of the factors involved, unless one is willing to write a manual discussing these factors in detail. Consequently, many factors will be merely mentioned rather than discussed in full and the reader is referred to the extensive papers in the horticultural magazines and society proceedings which discuss in detail the factors which may be mentioned only briefly in this paper.

In the first place there is no doubt that there are many areas in the State of Florida which, because of some handicap, are poorly adapted to citrus plantings; yet have been planted to citrus and sold to trusting buyers as good investments. In seasons when there is a short crop such groves may be profitable although the returns over long periods may be unsatisfactory. In this class of marginal groves may be put those developed in frosty locations; those on high, dry, sandy ridges deficient in humus; those on poorly drained lands subject to inundation; those on unsuitable soils such as those underlaid with hardpan or limerock which is too near the surface; and those in districts more or less inaccessible because of poor transportation facilities. The type of groves just mentioned frequently change hands and in consequence absorb much of the capital brought into the state by novices without giving them satisfactory returns until they become "wise" and pass the buck to some other novice. Fortunately or unfortunately the crop of greenhorns seems to be a perennial one. However, loss brought about by wind damage can scarcely be foreseen or prevented although the coastal areas in the southern portion of the State seem most subject to such damage, the State losing more than a million boxes this season from this cause alone.

The citrus fruits of Florida are grown on several rootstocks. Certain of these are more satisfactory to the nurseryman than to the grower for, while they make fine, healthy, vigorous trees in the nursery, when planted out in the grove they often are short-lived and produce fruit of inferior quality. Also certain combinations of stock and cion make dwarf

trees which have a strong tendency to over-bear and which do not live as long as more congenial combinations. Another source of loss in connection with rootstocks lies in the selection of stocks unsuited to a particular situation. An example of this is the use of rough lemon on low moist soils or sour orange and trifoliolate in high, droughty soils. The incalculable loss from poor selections of stocks is very great, and is only recently being appreciated.

The situation with regard to varieties in Florida is of necessity very different from that in California. The two main varieties of round oranges in California are Washington Navel and Valencia. Both of these varieties are seedless, and, owing to peculiar climatic conditions, are sufficient to supply the market for the entire year, the Washington Navel being on the market from November to April and the Valencia from April to Nov-

ember. In Florida the situation is quite different for, due partly to the limitation of varieties and partly to peculiarities of soil and climate, the three so-called standard varieties of round oranges, Parson Brown, Pineapple and Valencia, are only in season from November to May. Furthermore, the excessive plantings of the pineapple variety which can normally be marketed only from December 1 to February 15, and the large number of old seedling groves which ripen their fruit at the same time, produce a demoralized market during this period. 58% of Florida's orange crop is marketed in November, December and January. This seedy Pineapple and seedling fruit (often poorly colored and immature) comes into competition with the seedless, highly colored Washington navel from California, with the result that often the prices received do not pay the freight. When it is taken into



Fig. 1. Map of the United States showing the area that would use Florida oranges to a greater extent than California if transportation rates and facilities were equal. If, as some claim, the market prefers California oranges more than Florida oranges, then a line parallel to the heavy line and east of it would be present under conditions where fair transportation charges existed.

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consideration that nearly half of the sweet orange crop must be marketed during this ten week period, the consequent demoralization of the market is easily understood. A similar condition is found in the grapefruit. Only a comparatively small proportion of this crop is mature before January 1, yet the extensive planting of grapefruit has forced the grower to spread the marketing season by shipping immature and unpalatable fruit in order to relieve the mid-season congestion. This immature fruit has a heavy depressing effect on the market, especially when the supply is greater than usual. The attempt to hold Pineapple oranges and grapefruit on the trees beyond the natural season results in an excessive drop and heavy loss to the grower. The development and planting of round oranges which are seedless and have a long marketing season, and of early varieties of grapefruit, will be an enormous advance and will save the state and the growers a large portion of the loss brought about by the glutted mid-winter market. In order that Florida oranges may compete successfully with California oranges, they must not only be full of juice and well-flavored, but seedless and fully colored. As seedless is a varietal characteristic it is highly desirable that only seedless varieties be used in future plantings. The question of color can only be solved by growing the fruit on soils which are rich in humus and allowing it to reach a certain degree of maturity before harvesting.

There is no doubt that the rich moist hammock soils of the State which contain an adequate supply of humus produce fruit of high color and flavor better suited to the market than that produced on the poorer soils. The advantageous use of cover-crops not only reduces the cost of fertilization, but the use of leguminous plants such as crotalaria and beggarweed for this purpose adds to the soil at very little cost large amounts of that expensive fertilizer ingredient nitrogen. The addition of humus by means of cover-crops furthermore increases the water-holding capacity of the soil, enabling the tree to carry a maximum crop to maturity.

While frequent cultivation of young groves is necessary in order to increase the growth of young trees, it has an injurious effect on the soil due to the speeding up of oxidation and the consequent loss of humus. Therefore the too frequent cultivation of mature groves is an economic waste in that it tends to reduce both the quantity and quality of the fruit

produced. Economical citrus production requires a careful evaluation of this item.

Practically all the citrus grown in Florida is produced with the aid of commercial fertilizers. Not only is this a perennial tax against the industry, but there is no doubt that there is much waste in the handling of these materials. Low grade fertilizers containing a small percentage of the required ingredients, and sometimes harmful ones, uneconomical methods of distribution, dieback and other physiological disturbances associated with the use of unsuitable kinds or excessive or insufficient amounts; all of these are costly to the industry. Potash and phosphoric acid are often used in excess of the needs of the tree while the crop on the tree may be suffering from a deficiency of water or nitrogen. A lack of nitrogen may be easily remedied, but water, often a limiting factor also, can be best supplied by increasing the water holding capacity of the soil, although under certain conditions irrigation may be justified.

In certain sections of the State where the trees have been planted too closely the production per acre after the first few years has decreased. It is a question whether it is more de-

sirable to remove some of the trees or to supply increased amounts of fertilizer and to irrigate, but there is no doubt that something should be done to bring such groves up to normal production.

One condition often overlooked is the increased cost of production in acreages too large or too small to be handled efficiently. The area which can be most efficiently handled by one man doing all the work varies according to his capacity, but five, ten, or even twenty acre groves handled by one man must, in the nature of the case, have much higher cost per box than one man groves which are somewhat larger. Likewise when corporations are handling very large groves it is more satisfactory to divide them into units of 1000 to 1500 acres. This size unit seems to be more efficient than larger or smaller ones and when large plantings are made by corporations it will probably be more economical to use units of such size. There appears to be a tendency for citrus production to come more and more largely into the hands of corporations which have the power to produce fruit economically and to sell it advantageously; and which have sufficient capital to employ men who are technically train-



Fig. 2. Map of United States showing conditions as it really exists. Cities south and east of the heavy line use more Florida than California oranges. Notice that the Mississippi Valley and Great Lakes section are practically closed against Florida fruit due largely to transportation conditions. (Data as to proportionate amount used by the various cities taken from Bulletin No. 10 of the BUREAU OF RAILWAY ECONOMICS.) Compare with Fig. 1.

ed in citrus production. Only by very close cooperation between individuals handling small groves can the competition of corporate production be met.

The enormous expense incident to the control of diseases and insects affecting citrus can hardly be appreciated by one who is unfamiliar with conditions. Yet this expense is vastly overshadowed by the loss occasioned when the diseases and insects are not completely controlled. Two diseases, stem end rot and blue mold decay, cause enormous losses to the grower because of their effect on the fruit on the market, while the russetting of citrus, brought about by several causes, results in a heavy discrimination on the market against much of the Florida fruit. While control of disease and insects is expensive, lack of control in the grove is much more costly, making a higher production cost and a lower return from the fruit. In order to have efficient control spraying must be thorough and timely, using the proper materials, dead wood must be pruned out and the trees kept in good condition by proper feeding.

Inefficient and poorly supervised picking crews are the cause of much of the decay in transit and on the market. Clipper cuts, long stems, scratches and bruises due to rough handling could be largely prevented by proper attention to the picking crews. Furthermore, some selection of fruit should take place in the grove, and this is impossible without a thoroughly trained and supervised picking crew. Fruit that is frosted, immature, dried out, or that with seeds sprouted should not be brought to the packing house, for even if it is sorted out by the graders, it adds to the amount handled in the packing-house and tends to lower the grades when it is present in any amount. Even when grading is at its best some of this type of fruit will be overlooked and allowed to reach the market.

Many packing houses in the State are inefficient; poor management and careless supervision of the packers and handlers, particularly of the graders, insufficient light; rough handling of fruit; grading standards too low (acceptance of U. S. Standard grades should remedy this); poor routing of fruit in the packing house because the house is poorly planned; no precooling equipment; all of these are causes of poor arrival on the market, weak consumers' demand, and consequent low prices. Due to many factors, some of them irremediable less than 2% of the citrus fruit shipped out of the State can

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be graded fancy, with the result that there is a premium on fancy fruit, and a heavy marking down on other grades. This gives a good profit to the man who is able to grow and ship fruit that is of the highest quality, but the low prices on other grades during the middle of the season keep the margin of profit on the average fruit very low, and often the shipper of this type of fruit does not get back the cost of shipping and packing, to say nothing of the cost of production. As long as the marketing agencies and railroads get their costs back plus a profit, they will be willing to ship and handle fruit of lower grades, even if the grower gets nothing and the market is demoralized by the abundance of low grade fruit.

One of the principal handicaps under which the southeastern district is suffering is due to the archaic rate scale, which enables California, fifteen hundred miles farther from the centers of consumption, to get her citrus fruit into the market as cheaply as Florida. Under present rates the cost of getting a box of oranges to Toronto from Los Angeles is about five cents less than from Orlando, Los Angeles being at about the center of production in California while Orlando is at about the center of production in Florida. This rate scale is based on the theory that the cost of carrying is higher in the southeastern district than in the rest of the United States, and has only one advantage as far as I can see; it has made the principal railroad serving Florida probably the richest railroad in the United States. Although Florida can produce oranges about fifty cents a box cheaper than California, yet the Mississippi Valley points, which are nearer to us than to California, use much more California fruit, largely because the lower cost of production is overbalanced by the added freight cost.

Added attention to water transportation and a united front presented by Florida shippers would do much to alleviate this situation, which is largely an artificial one built up by a program of aggrandizement by transportation officials over a long period of years. Until the basis for rates is based on cost per ton-mile rather than the value of the freight (another version of all the traffic will bear) there will be little prospect for the fruit growers of the southeast to get the equal opportunity in the Mississippi Valley market to which their products and position entitle them. Much of the midwinter fruit, now largely wasted, would be taken up by this market if it were open to the grower.

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Two years ago there were one hundred and forty agencies marketing citrus fruit, many of them much more interested in getting ahead of their competitors than in getting the most profit for the growers who shipped through them. While there is a less number marketing fruit at this time there has been at no time any of the harmony among shippers that is necessary in order to market sane-ly and evenly. Before we can stop gluts we must arrange to ship only according to the demands of the market, rather than twice the demand one week and half of it the next week. The consequent gluts and shortages of disorderly marketing are disastrous when the production is so far from the market. More accurate information should be available to the shippers as to the needs of the various markets from day to day, as well as what is being done by other shippers to supply market needs.

The development of the auction markets in the larger cities has been of great help in finding consumers for the enormous amount of citrus fruit used, and it is probably due to them more than to any other factor that New York is a larger consumer of oranges in proportion to its population than any other similar portion of the globe; with a large producing apple area immediately near it 10% more oranges are consumed in the New York territory than apples. Advertising the value of citrus fruits has helped, particularly the recommendations of the medical profession, so that almost every one knows of the prophylactic and curative value of these fruits.

In closing it must be emphasized that until the grower like other manufacturers has found a way to control and regulate production so that it reflects the consumer demand, he will always have troubles brought about by a surplus, but it is probably possible to control citrus production more easily than the production of other agricultural crops. Some of the reasons for this statement are found in the following facts; it takes some time to establish a grove and get it into production (five to seven years); the amount of the crop is directly related to the care, particularly the amount of fertilizer applied, (so that poor returns limit fertilizer applications and reduce the crop the following year); if the wrong variety is planted it may be easily top-worked to types that the market requires (consequently a citrus grove is more flexible in responding to market changes); the amount of land suit-

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# CITRUS COMMENTS

BY

R. E. Lenfest, Orlando, Florida, District Manager,  
Lyons Fertilizer Company

## Unbank Young Trees

By this time all young trees should be unbanked. If this work has not been finished it should be finished as soon as possible. In doing the unbanking be very careful not to injure the bark of the young trees. The bark on the trunks having been covered up for many weeks by moist soil is rather tender and easily damaged. If the banking was done with a shovel and holes were dug to get dirt free from trash then the dirt from the banks should be thrown back into these holes so as to leave the ground smooth. It is quite important to have all of the banks removed so as not to leave roots too deeply covered with dirt. If all this dirt is not removed each time the trees are unbanked it will pile up around the trees and be apt to cause an unbreakable condition of the crown roots.

## Fertilizing Young Trees

In connection with unbanking it often pays to consider a spring application of fertilizer on young trees. If the trees are young and do not have a very extensive root system it will pay to do the unbanking before applying the fertilizer. Where larger trees have been banked it is not necessary to remove the bank before applying the fertilizer. The analysis for the spring fertilizer on young trees should be about 4-8-3 with about one third to one half of the ammonia from organic sources.

As mentioned last month, the young trees which have been damaged by frost will require special attention. If the injury has only been slight it will be safe to use about the same amounts per tree as used in the fall application. Be sure to spread this fertilizer evenly and well out to the edge of the area covered by the root system. To be sure you are doing this properly take time to dig around a number of trees and find out just how far out the roots have grown. A little time spent at each application finding out how much the roots have grown should enable you to grow bigger and better trees quicker than is ordinarily done. This

of course depends on whether or not you take advantage of the information you secure regarding the roots. If you can give the young trees the full amount of fertilizer they can handle and spread it evenly each time covering the entire space from the edge of the branches out to and just a little beyond the extent of the roots you will be sure of getting good vigorous trees. The correct methods of fertilizing should go hand in hand with regular but not too deep cultivation.

Young trees rather severely injured by frost should not be given the full application all at one time. Do not try to force such trees too rapidly. Put on about half the regular amount for the first application and the same amount thirty to sixty days later depending upon the amount of growth the trees make.

## Pruning Frozen Trees

By this time most of the young trees should have made a sufficiently vigorous growth to indicate just how far back they should be cut. Any that have not made such a growth should be left for a little while to see if they will not do so. In doing this pruning be sure to cut well back into the live wood and never leave any stubs. On the younger trees it is quite important to cover the pruning wounds with paint or some other preparation to prevent the exposed wood from drying and cracking.

## Pruning the Older Frost Damaged Trees

Don't do it now. Wait till later when the new growth has had sufficient time to mature and be sure that the trees are in good vigorous condition before doing any of the severe pruning that may be necessary.

## Citrus Scab

A number of citrus authorities are agreed that we are apt to have a good deal of scab this season. To be sure of the best results the pregrowth spraying with Bordeaux oil or lime sulphur solution should have already been done. If the infection is not severe and lime sulphur alone is to be used then the next application

should be applied when about half the bloom is shed. If the grove is one where scab has always been more or less severe it will be advisable to use Bordeaux oil instead of lime sulphur solution.

## Melanose

The increased amount of small dead wood in the bearing trees this season is a very strong indication that the amount of Melanose will be rather severe. There was quite a marked increase in the amount of Melanose following the 1917 freeze. For the last few years Melanose seems to have been slightly on the decrease. This has been shown by figures taken from the check blots of those who have been carrying on experimental work in Melanose control. It seems that instead of a decrease we are to have a very marked increase in the amount of Melanose. The best spray to use for the control of Melanose is home made Bordeaux oil.

It is not hard to make home made Bordeaux oil and then you are sure of what you are using. Following are brief directions for making.

Dissolve bluestone in a wood barrel at the rate of one pound per gallon of water. Suspending the bluestone in a sack so that the bottom of the sack is a few inches below the surface of the water is the easiest way of getting it into solution. Fill the sprayer three fourths full of water and then dip in three gallons of bluestone solution per fifty gallons capacity of the sprayer. (For a 200 gallon tank pour 12 gallons of bluestone solution). Next start the sprayer and sow about 16 pounds of builders hydrate lime on top of the liquid in the tank. (The lime is used at the rate of four pounds per fifty gallons—thus the 200 gallon tank tank requires 16 pounds.) Last add the oil emulsion using it at about its regular strength—the 200 gallon tank would need 2½ gallons of the oil.

This Bordeaux oil should be applied between April 15 and May 5 as a rule. The important point seems to be that the Bordeaux oil spraying for Melanose control be completed be-

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# Control of Citrus Melanose and Stem-End Rot

H. R. Fulton, Pathologist, U. S. Bureau of Plant Industry

It is a fact well established by experimental tests and by grove practice that the melanose blemish of citrus fruits can be satisfactorily controlled under Florida conditions by a single application of 3-3-50 Bordeaux mixture plus 1% oil in the form of emulsion put on before the May rains set in. This means between April 15 and May 5. With good commercial spraying 90% control or over can be secured. It is also recognized that regular spraying of the trees once a year with Bordeaux mixture tends to eliminate ammoniation of the fruit and other dieback symptoms. Furthermore, the oil in the combination spray is effective against white flies and scale insects.

There are two risks connected with such spraying. Scale insects are likely to increase because their fungus parasites are reduced, just as the melanose fungus is, by the Bordeaux spray. This is only partially overcome by adding the oil emulsion to the Bordeaux mixture, and a follow-up spray of oil emulsion must be made in late June or early July in practically all cases. The second risk is the possibility of injury to the fruit by the spray itself. In most cases this is negligible, but occasionally serious damage occurs. All the various factors concerned in spray injury are not fully understood. Its avoidance requires the closest attention to all details to be sure that there is nothing wrong with the ingredients of the spray, the quantities used, the method of mixing, the mode of applying, the condition of the trees or the weather. Using the Bordeaux mixture without the addition of oil emulsion lessens the danger of spray injury and will control melanose but increases the risk of scale insect damage. Scale insects can be controlled after the use of plain Bordeaux by a very thorough follow-up spraying with oil emulsion but the average commercial spraying usually fails to give complete control under such circumstance.

Another advantage resulting from the spraying for melanose control is a distinct improvement in the keeping quality of the fruit after it is picked. This results largely from the reduction of stem-end rot and practically not at all from prevention of blue-mold rot. Stem-end rot is caus-

ed by either one of two fungi, both of which flourish in dead twigs or limbs. One of these is the melanose fungus, known as *Phomopsis*. The other, *Diplodia*, is not known to produce any blemish of fruit or leaves. Both are able to establish themselves in an inactive way in or near the stem bottom during the growing season. After the fruit is picked, these stem-end rot fungi find it possible, probably because of physiological changes in the condition of the fruit, to grow downward into the fruit and rot it.

Careful and extensive tests carried on during six seasons at the U. S. Citrus Disease Field Laboratory, Orlando, Fla., show that spraying the young citrus fruit between April 15 and May 5, which is the best average time for melanose control, with Bordeaux oil emulsion resulted in preventing half or more of the form of stem-end rot caused by the melanose fungus; the other type of stem-end rot was reduced about one-fifth. The combined effect upon all rots was a reduction of about one-third. Probably the potential stem-end rot infection by the melanose fungus occurs mainly during a limited period which one spray application covers rather effectively, while that by the other fungus occurs over a much longer period, so that a single application gives only slight control over it. While two applications increase the protection from stem-end rot, the gain is not enough in the average season to justify the doubling of cost of spraying. Lime-sulphur solution 1-40 and copper lime-dust, even when applied two or three times, did not give as good results as one application of Bordeaux oil.

The net profits to the grower from spraying for melanose control may be conservatively estimated at 15 to 25 cents per box with the cost of the follow-up oil emulsion spray figured in. This is due to improvement in grade of the fruit. The additional value in improved keeping quality is secured at no increase in cost, and may not always be realized in direct money returns, for the reason that a large bulk of Florida fruit is marketed and consumed too quickly for the development of the stem-end rots that spraying reduces. Such spraying is good and cheap in-

surance against occasional and unusual outbreaks of stem-end rot that may strongly depress sale prices, and it guards against throwing the burden of later rot on the unsuspecting buyer. The reputation of Florida citrus fruit for keeping quality will be ultimately improved by a more general practice of spraying in groves that are heavily infested with melanose. Fruit from such groves is most apt to give trouble from decay and the reputation of other fruit from cleaner groves may suffer undeservedly.

Both of the stem-end rot fungi flourish in dead citrus wood, and such dead wood is the source of infection for the fruit. It has been found in experimental tests conducted by the U. S. Department of Agriculture, that pruning out the dead wood, when thoroughly done, reduces the chances for stem-end rot development in the fruit after it is picked. The relative control of the two forms of stem-end rot by pruning out dead wood is the reverse of what it is by spraying; that is to say, the melanose or *Phomopsis* type of stem-end rot is less effectively controlled by pruning than the *Diplodia* type. This is probably because most of the *Diplodia* growth is in the bark of larger limbs, and these can be removed with considerable thoroughness. On the other hand, much of the *Phomopsis* fungus is found in the smaller twigs or dead fruit stems, and in such situations it is impossible to make a very thorough clean-up. Under ordinary marketing conditions the *Phomopsis* type of stem-end rot is the more usual one, hence the greatest practical benefit will come usually from the control measure, Bordeaux-oil spraying, which is most effective against this type. Both control measures, pruning out dead wood and spraying, are in large degree supplementary to each other, and the very best results in stem-end rot control are to be expected where the two are practiced together.

Other measures for stem-end rot control are largely in the hands of the shipper rather than the grower. These include treating the fruit with borax solution, keeping the fruit at low temperatures during marketing, and handling with promptness

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# Satsuma Growing In Mississippi

**By C. J. Coppock, General Manager, Pearl River Highlands Company, Picayune, Mississippi.**

The first plantings of satsumas in this immediate territory were made five years ago. Since that time there has been considerably more than 1000 acres of satsumas put out in the territory immediately surrounding Picayune. Trees of the first plantings produced some oranges year before last and a very considerable crop last year. All of last year's crop was readily absorbed by the local markets, the fruit being bought directly from our packing house which is located along the Jackson Highway.

It has been already demonstrated that soil and climatic conditions here

ber of other plantings were made in the back country around Biloxi. Evidently, however, lack of knowledge as to care of trees and ignorance of soil conditions, and locations that were not suitable to the best development of the groves, most of these ventures did not prove successful.

Later experience has demonstrated that the heavier soils with greater elevation produce a more vigorous growth and have a hardening effect on the trees. The fruit on trees so located grows to better size and seems more resistant to the cold. The original theory was that proximity to

Mississippi, and the plantings on the plateau lands in the vicinity of Picayune.

The industry here is, of course, in its infancy. However, it is a lusty baby. It is being sponsored by people with sufficient means to carry the development forward and those interested here have a very thorough knowledge of the citrus industry and have made a close study of the satsuma end of the industry. Among those interested in the industry in this locality are horticulturists from Florida, Virginia, Tennessee and Texas, all working together for the ad-



Picking fruit in Satsuma orange grove of Pearl River Highlands Company at Picayune, Mississippi.

are very favorable for the growth and rapid development of the satsumas and indications at present are that the plantings will continue to increase each year. A great many satsumas are being planted with pecan trees which also thrive exceedingly in this territory.

The history of the satsuma growing in South Mississippi dates back to a period about twenty years ago when Colonel Money undertook to raise satsumas on a rather large scale on his heavy holdings in the vicinity of Ocean Springs. Shortly after Colonel Money began his operations a num-

salt water equalized temperature. It has, however, been demonstrated and is a proven fact that temperatures are more equable in the higher elevations such as in the Highlands of Pearl River county, and authorities who have made a close study of satsuma development and growth are convinced that the highlands are most suitable and that danger of damage by frost is much less in these higher locations.

Today the outstanding examples of model plantings of satsumas in South Mississippi are the Swann groves on bench lands near Lyman,

vancement of the satsuma industry as well as other horticultural development.

In addition to the horticultural developments including satsumas, there is at the present time a very marked growth in the early vegetable and other trucking industries in this and other sections of Mississippi, including large developments of dairying and poultry raising. The stock law which was passed at the last session of the Mississippi legislature has had a tendency to cause a revolution in the agricultural industries of the state.

## FLORIDA MAN APPOINTED GENERAL CHAIRMAN TRANSPORTATION COMMITTEE OF A NATIONAL ORGANIZATION

Advice has just been received of

the appointment by President Davis of the American Fruit and Vegetable Shippers Association, of Mr. J. Curtis Robinson, Secretary-Manager of the Growers and Shippers League of Florida as General Chairman of the

Transportation Committee of the Association.

The General Chairman of the Transportation Committee is an ex-officio member of the committee on

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# The Citrus Industry

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Cables: "Wortraser," New York  
Codes: A. B. C., Liebers

## GROVE CALENDAR FOR MARCH

### Timely Suggestions For Grove Work During the Present Month

Keep the Acme harrow going every week or ten days in the citrus grove; frequent cultivation checks loss of moisture required by young fruit.

Trim nursery stock preparatory to budding; start budding if stock is ready.

Spray to control melanose and scab of citrus with 3-3-50 bordeaux-oil emulsion (1 percent oil); apply spray ten days after petals fall.

Pick up and destroy wormy peach drops and lessen later damage from curiulio (wormy peaches).

Spray or dust pecans with lead arsenate, as the leaves come out, for case borers and bud worms.

## FLORIDA'S RESPONSIBILITY FOR DECLINING PRICES

Talking on this subject from Station WDBO, Winter Park, Florida, on the night of February 22, Mr. A. M. Pratt, salesmanager of Chase & Co., Orlando, touched on some salient points which cannot be too strongly emphasized. After bearing upon the present situation at some length, Mr. Pratt summed up his idea of the remedy in the following words:

"It is a question of confidences, fore-sight, competitive cooperation, and a strong social

moral sense of industry problems on the part of the shippers, or on the part of the growers, or both. In either case, in both cases, it is slow evolution, trial and error, leadership, patience, and a recognition that the good of the whole must take precedence over the good of the individual. It is an application to business of organized effort, instead of using the same or greater efforts with far greater industry losses individually. It means business custom and procedure on a higher level — where moral pressure will have big play, and where the individuals concerned, whether in the shipper group, or grower group, will be so working together as to make self-interest, viewed over a long period, equalize what individual sacrifices are necessary to reach that goal. We must see that self-interest, if looked at in perspective and over a long distance, merges with so-called altruistic motives.

"Cooperation between intermediary groups is a later development of the cooperative idea than producer-cooperation, and is frequently more successful, from an industry standpoint that when acting cooperatively, it is more easily possibly to maintain greater flexibility, more initiative and more far-sighted self-interest in handling its problems along strictly business lines than between producers, where the problem becomes so massive from the number of producers involved, as to require focusing and re-focusing groups to a point where the democratic idea of purpose is greatly neutralized, before it can reach a point of few enough executives for decisive action.

"The citrus industry of Florida needs cooperation. Which group is most able and willing to cooperate remains yet to be determined. Necessity in the end will impel one or both towards the forward steps we must eventually take."

There can be no question that greater cooperation among the marketing agencies, between the cooperative and the independents, would do much toward solving many of the difficulties which now beset the industry, if, indeed, it did not entirely solve the marketing problem. It is equally certain that such cooperation between the various groups must be based upon natural confidence. This fact is recognized by the Fruitmen's Club, which during the past year has devoted much of its effort toward fostering the confidence essential to successful organized effort among competitive factors. President Victor Newton has emphasized this need and devoted himself to bringing about organized cooperation.

And there must be likewise similar confidence and cooperation between the "grower group" and the "shipper group." There must be confidence and cooperation all along the line. As Mr. Pratt suggests, this may savor somewhat of altruism, but as he also suggests, if looked at in perspective and at long distance, the element of self-interest will present itself to all concerned.

There has been entirely too much back-biting, too much bickering, too much recrimination among the various groups, too much inclination to view the immediate selfish end and too little regard for the greater good of the indus-

try as a whole, which in the end spells greater good for the individual, whether he be grower or shipper.

Mr. Pratt has outlined a big program, but if he can "pull it off" he will have benefited the industry as no amount of bickering or strife stirring can ever do.

### WHAT'S WRONG WITH THE FLORIDA CITRUS INDUSTRY

Writing under the above caption, one observant Florida citrus grower, in an article elsewhere in this issue of The Citrus Industry, analyses the present status of the industry in the state and points the way to what he believes to be the major remedy—and The Citrus Industry believes that he is not far wrong.

This grower, whose article shows that he has given the subject close and careful study, believes that the growers themselves have the solution of the problem largely, if not entirely, in their own hands. As this grower sees it, there is no mystery about the situation and no alchemy about its solution. It is purely a matter of

**First**—Producing nothing but the very best fruit which the soil and climate of Florida and the very best cultural methods can be made to produce; and

**Second**—Seeing that no unfit fruit of any kind is permitted to be shipped out of the state.

That is a simple program, but if carried out it would do more toward placing the citrus industry of Florida where it belongs, and would have a greater influence upon the stabilizing of price than the appointment of any czar or the building any imaginary wall of legal procedure about the industry. If every Florida grower would grow only the best fruit of which his grove is capable under the best cultural methods, and if he will then insist upon such rigid inspection that none but ripe, wholesome and attractive fruit is permitted to leave the state, there will be found ample demand for all that Florida can produce—and at prices which will bring the grower a profit.

### HORTICULTURAL EXPERT DIES

Just as the last forms of The Citrus Industry are going to press a wire from Winter Park advises of the death of Mr. R. E. Lenfest at his home there on the morning of March 11th as a result of blood poisoning.

Mr. Lenfest was first taken ill some ten days prior to his death, his illness resulting from a slight infection on the little finger of the right hand which later developed into a malignant case of blood poisoning which affected his entire system.

Mr. Lenfest was known as one of the leading horticulturists of the state and was particularly prominent in citrus circles. For the past two years he has conducted the department of "Citrus Comments" in The Citrus Industry and had been for some years in charge of the field work of the Orange County Citrus Sub-Exchange. At the time of his death Mr. Lenfest was connected with the Lyons Fertilizer Company as district manager at the Orlando office.

Few people connected with the citrus industry in Florida were more widely known than Mr. Lenfest and few indeed were held in higher regard by growers. As a horticulturist Mr. Lenfest's opinion probably carried as great weight as those of any man in the state. His death is a distinct loss to Florida horticulture.

### HORTICULTURAL SOCIETY MEETING

President L. B. Skinner and Secretary Bayard F. Floyd of the Florida State Horticultural Society have issued the call and prepared the tentative program for the Fortieth Annual Convention of the Society to be held at Bredenton on April 12 to 15, inclusive.

The Florida State Horticultural Society has done much for Florida horticulture, particularly for citrus culture, during the years of its existence. Indeed, horticulture in general and citrus culture in particular doubtless owe more to the Florida State Horticultural Society than to any other one factor. As individuals and as officers of the Society, the present president and secretary have given of their best in the interests of Florida horticulture.

The meeting this year is to be held right in the heart of some of Florida's greatest horticultural developments, and almost within sight of one of the state's great horticultural nurseries—the Royal Palm at Oneco.

The program, so far as at present arranged, promises to be the equal of any ever given at an annual meeting of the Society, and every topic of horticultural interest at the present time will find a place in the discussions of the gathering. Many subjects particularly timely at this moment have been assigned to speakers of prominence, while the visitors will find right at hand the material for field study of many horticultural subjects.

Every citrus grower in the state, who can possibly do so, should arrange to attend the meeting and to register himself as a member of this society.

*R.E.* Have you planned your season's campaign of extermination against the bugs?

Bright fruit means bugless fruit. What arrangements have you made for fighting the bugs?

The highest price goes to the brightest fruit. Why raise fruit of the other kind?

Don't neglect the fertilizer needs of your grove. Too much "economy" of this kind now will show on the wrong side of your bank balance next year.

It is a safe bet that there will be more grove heaters in Florida next winter than there were last.

Some men are always looking for trouble. Already we begin hearing estimates of next season's crop.

The three "ings" which will help control the bugs—Spraying, dusting, fumigating.

# Growers and Shippers League Needs Support

L. B. Skinner, prominent citrus grower and President of the Growers and Shippers League, views the developments on the rate case as it is now being handled through the Growers and Shippers League with considerable apprehension. He views with alarm the lack of support to the league from a great many growers and shippers, both vegetable and citrus, which is needed if the case is to be carried to a successful and favorable conclusion.

"I hesitate to enter into a discussion of freight rates," Mr. Skinner said. "I am not a freight expert at all. I am simply a Florida grower with a knowledge of conditions that obtain now and have obtained for many years. I realize as a grower what growers are up against."

#### The Saturation Point

"One would hate to admit that the production of oranges and grapefruit had reached a point of saturation viewed from a marketing standpoint. Nevertheless, that is what we are up against if we are to rest satisfied with the rate on our fruits and vegetables that are meted out to us by the railroads. The cost of our fruit in the market will remain too high for us to broaden those markets successfully against competition."

"Far-seeing railroad men, principally of the West, are entirely in sympathy with us in our fight for a lower freight rate on both fruits and vegetables."

#### Industry Supports Railroads

"If it had not been for the enormous freight rate received by the Florida railroads from our fruits and vegetables at the high rate at which they are carrying it, the roads would be in the hands of a receiver. In other words, the Florida industry is being made the burden bearer for the railroads. It is being made to pay an unjust and very high rate of freight far in excess of the justice in the matter. Those who know, like the able secretary of the league, tell us what enormous profits there are made on our traffic.

"As an instance of the latter, there was produced at the recent rate hearing a report of the cost and profit of the handling of the citrus and vegetable industries for the state made for the benefit of a few of the higher officers of one of the Florida Railways.

#### Private Railroad Report

"This report was of a private nature for the information and personal use of the officers of the railroads. On that account it was not admitted as evidence before the examiner. This report made by the railroads for their own use showed that they were making abnormal profits out of us growers. It showed that our industry was and is bearing an unjust proportion of the operating expense of the railroads.

"It seems to be the policy of the railroads to grant every increase of the demands of the trainmen and others and to pass that increase along to us growers in the form of additional freight rates, still higher rates than we have now to pay.

#### Anticipates Higher Rates

"This tendency is shown in many ways. All the time in every way that is possible to devise, the railroads are seeking a raise in rates. Take the refrigeration charge. They are after an increase in this rate all the time. When we stop them on one line of endeavor to get this rate raised, it is certain that they will soon be after the same thing in a different way—by a different route, if you please. It is up to us to watch their every move in order to keep them from putting a few cents on a package here and a few cents there, which will eventually make a great difference to us in an increase that will aggregate millions of dollars a year.

#### Wants League Support

"The Growers and Shippers League must be on the job in order to protect the interests of the growers from such tactics. It must have a high class man in the shape of a secretary-manager. If we don't do this, we are certainly going to have to pay more freight per box on our fruit and in different ways.

"The support of the league must come from us growers. There is no one else to take the burden far us. If we save one cent a box only to the growers it runs into hundreds of thousands of dollars in an aggregate total. If we have to pay higher freight rates it would cost us much more than this.

"For our own profit, for our own protection, we must support that league. There is only one paid employee in the entire organization and that is the secretary-manager. And I will say that for accuracy of his know-

ledge, for singleness of purpose in working for the interests of all the growers regardless of their marketing affiliations, and for tireless industry I know of no man who equals our faithful and competent secretary-manager, J. Curtis Robinson. But he must have money necessary to pay for the work that is being done.

#### League Expense Heavy

"We must hire attorneys. That expense is large. It is a crime that it costs so much to bring a case of this kind before the Inter-State Commerce Commission. But it is high, too high for any single man to undertake. THE ONLY WAY THAT THE SITUATION CAN BE MET, however, is to get together under the Growers and Shippers League, share the expense and concentrate upon an effort to get just returns.

"Every grower's and shipper's support is needed and needed now.

"The railroad, judging from the examiner's report, are trying to tire us out. They get an extension of time to argue. They get an extension of time and succeed in putting the matter off. This is the most important matter that concerns us growers. We have to have able attorneys to argue these points. These attorneys must be paid.

"Are we going to lie down and let the railroads walk over us? I hope every man will do his part. The evidence is over-whelming, to me at least, that the rates are too high. The private report of the railroads themselves for the private and personal use of its higher officers showed this in unmistakable figures. Because of some technicality, however, this report was not admissible as evidence. Nevertheless, every grower and every railroad man knows that this was the most conclusive evidence to convince us that we are entitled to what we are asking for.

"I want to ask every grower and every shipper to get behind the league with his support and help us make an extra effort to push it to a final success."

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Household accounts provide a permanent record of what is spent and act as a guide for the future.

"My wife has run away with a man in my car."

"Good heavens! Not your new car?"

# Florida's Responsibility for Declining Prices

The following talk was broadcast from WDBO, at 8-55 PM, February 22, 1927, from Winter Park, Florida by A. M. Pratt, Sales Manager, Chase & Company, Orlando, Florida

Today we are enjoying a good market in oranges. \$3.25 FOB for good commercial packs, good sizes—up to \$3.75 for the best is the range. This realizes at least a thousand dollars per car FOB, and this means much personally—not only to our pocketbooks, but to our hopes, our feelings, the selves with which we feel and struggle and hope on. The sobering question comes—"Will it last?"

Analyzing it, we know that California had a long heavy rain of four days. Supplies were cut off there, and we benefited here. We profit at California's expense, for she must and will start shipping much heavier than she would otherwise, and will doubtless soon be realizing less than if her shipments could have continued in an even steady manner. If nothing interferes it is possible her shipments will reach twelve to fourteen hundred cars this and next week instead of four hundred and fifty cars, which were shipped last week. Our shipments this week will probably reach a thousand cars of oranges, and possibly two hundred cars of mixed. We received a wire, by the way, today from California saying another storm threatens. If it materializes shipments are estimated at eight hundred. If it does not this wire estimates fifteen hundred cars will be shipped from California this week.

And the good prices cannot last? Probably not—not with conditions as they are. You and I resent even acknowledging this fact. It seems that there should be some way to do better—must be some way. What makes prices decline? The ready-made answer is, increased supplies. Why do increased supplies necessarily make the decline? Because there are more cars offered at the former price than there are car-lot buyers ready to take the chance of buying. Do these car-lot buyers want to see a decline? Collectively no—individually however they do not feel safe in buying except at a lower price, because they fear competitors will buy for less. The buying trade as a whole lose money on a declining market, and don't like or want declines any more than the Florida shippers do, or you growers. But the buyers cannot help the decline.

Is the consumer then responsible

for the decline? Declines and advances reach the consumer in price levels fairly well evened out. Consumer prices do not respond in full proportion to car-lot prices, where there are frequently ups and downs in the markets. Then what becomes of the money lost to the industry? The consumer may very indirectly get much of it—the retailer some of it, and the car-lot jobber some. Do the consumers want the lower prices? They think they do.

But in prosperous times thrift is not practiced very severely. Often times high prices have the greater appeal because the consumer figures that something that costs more must of necessity be better. In food stuffs one product competes with another in prices to the ultimate consumer. But it is not entirely because of the consumer demand that prices fluctuate to the producer. Ultimately any industry rests on this consumer demand, but the ups and downs that the producer experiences is not reflected in similar fluctuations to the consumer, and is simply lost motion in our machinery of distribution and marketing, and results from competitive fear with the car-lot jobber, competitive fear with the car-lot seller, and the competitive fear with the producer. In other words, prices reflects not only the cold laws of ultimate demand from the consumer, and original supplies from the producer, but competitive fear.

This fear exists because we do not trust each other. We don't trust each other as shippers, because we fail to see as clearly as we should our common ground for self-direction and indirect control of the products we secure from the producers. The producers don't trust each other for identical reasons. All of us at the production end, growers and shippers alike, are responsible for part of the loss resulting in lower prices than are necessary from an ultimate consumer stand-point.

It is a question of confidence, foresight, competitive cooperation, and a strong social moral sense of industry problems on the part of the shippers, or on the part of the growers, or both. In either case, in both cases, it is slow evolution, trial and error, leadership, patience, and a recognition that the good of the whole must

take precedence over the good of the individual. It is an application to business of organized effort, instead of using the same or greater efforts with far greater industry losses individually. It means business custom and procedure on a higher level—where moral pressure will have big play, and where the individuals concerned, whether in the shipper group, or grower group, will be so working together as to make self-interest, viewed over a long period, equalize what individual sacrifices are necessary to reach that goal. We must see that self-interest, if looked at in perspective and over a long distance, merges with so-called altruistic motives.

Which ever group can first see and act together, along lines that will approach these purposes, will be the ones who will do the greatest good for the industry. Neither group can exist without the other. They are mutually dependent. Competitive co-operation in one or the other, or somewhat in both groups, is the step which must be taken to advance Florida's interests the same as similar steps are being taken in so many other lines of "big business". The application of the cooperative principal can be as advantageous to an industry between the intermediary groups at production end, as between the individual producers. Some Trade Associates are doing remarkably advanced work in cooperatively and collectively applying business principles, and are forging ahead. Big business generally is seeing the light and acting accordingly in a way that makes our own industry appear amateurish.

Cooperation between intermediary groups is a later development of the cooperative idea than producer-cooperation, and is frequently more successful, from an industry standpoint than producer-cooperation, because between larger independent operators, when acting cooperatively, it is more easily possible to maintain greater flexibility, more initiative and more far-sighted self-interest in handling its problems along strictly business lines than between producers, where the problem becomes so massive from the number of producers involved, as to require fo-

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1. Freight & Freightway 2. Line Haul Rate Case

# Line Haul Rate Report Unfavorable

The Examiner's report in the Line Haul Rate case for Florida shippers is anything but favorable, according to an analysis made public by J. Curtis Robinson, Secretary-Manager of the Growers and Shippers League. Not only was the small rate reduction recommended by the Examiner on citrus entirely inadequate, but the Examiner advises a radical increase in vegetable and potato rates.

"The proposed citrus rate reductions made by the Examiner are entirely out of line with what the citrus industry is entitled to, considering its volume and conditions of rate structures made available to competitive citrus producing regions. If these rates should be adopted," says Mr. Robinson, "agriculture, both citrus and vegetable, will receive a blow from which it will take years to recover. The production of vegetables particularly, instead of being annually increased will be unquestionably materially decreased because of the inability successfully to meet the competitive rates of other large producing sections in the marketing of our produce."

#### Material Reduction Asked

The shippers of Florida in opening the Line Haul Rate case through the Growers and Shippers League asked for a material reduction in the rates of citrus fruits and vegetables. Another important contention made by the shippers was a request for a readjustment of the present antiquated rate structure and substitute for it a more flexible structure which would permit of a wider distribution of Florida citrus fruits and vegetables upon more fair and equitable rates. A further important claim made by the shippers is found in the contention that present tariffs are so complicated and technical in construction, containing such varied minima as to present difficulties for the compilers as well as the shippers who use them.

These contentions presented by the League counsel seem to have been carefully overlooked by the Examiner in his report, according to Mr. Robinson. "The Examiner has evidently failed to take sufficient cognizance of the situation to correct the present antiquated rate structure," continued Mr. Robinson, "such reductions as were recommended were based upon the present rates

North of Jacksonville and by creating five new groups of origin in the state to replace the present 63 groups. One of the very few favorable points in the Examiner's report is found in the fact that he recommends more simplified tariffs, which would be welcomed by the shippers."

#### Analyses Report

In continuing his analysis of the Examiner's report, Mr. Robinson points out various features of interest to all Florida shippers.

The slight reduction on citrus recommended by the Examiner were based upon increasing the minimum car load from 300 to 360 boxes, for standard length refrigerator cars. While the minimum of 32,400 pounds or 360 boxes was recommended for standard length refrigerator cars, a minimum of 29,160 or 324 boxes was recommended for short cars ranging in length from 28 feet 9 inches up to 31 feet 6 inches inside measurement, when furnished for the carriers convenience.

Among other things prominently brought out in the Examiner's report are that traffic and transportation conditions have experienced marked changes, especially within the state of Florida, since the period of 1908 and 1911, when rates on citrus fruit were previously before the Commission for adjudication. There has been an enormous increase in the production and in the volume of the fruit and vegetable tonnage. The ratio of southbound to northbound loaded car movement has greatly increased. The local point from which the carriers previously preferred their so-called "Gathering Service" has been shifted from Jacksonville to areas in the interior of the state nearer the heaviest production. There has been a large increase in the number of cars of perishables per freight train. The average loading of citrus and certain other perishables has gradually and materially increased. The shipment of citrus has increased 304% in 14 years. The increase in citrus shipments within the four year period, 1920-25 season was 40%. The vegetables shipped from Florida in 1913-14 were 25,773 cars and in 1924-25 36,567 cars.

#### Reduction Estimates Difficult

The reduction in the citrus rates as proposed by the Examiner is difficult to accurately approximate, accord-

ing to Mr. Robinson, because there are 63 groups of origin containing many shipping points, approximating about 1700, which name rates to about 14,000 destinations. As nearly as he has been able to work out up to this time, he approximates the average per car reduction on citrus from the five proposed groups of origin in Florida to New York, Boston, Philadelphia, Pittsburgh and Washington, D. C., to be about \$29.85. The average reduction from 31 points of origin in the five new proposed groups to Cleveland, Buffalo, Detroit and Chicago is approximately \$31.64 per car. The average reduction to Kansas City, Milwaukee, Omaha and St. Paul from the 31 points of origin in the five new proposed groups approximates \$33.45 per car. To Norfolk and Richmond from the same groups of origin the proposed reduction is about \$28.68 per car.

The reduction from points like Kissimmee only amounts to \$12.60 per car to New York, while from Palm Beach County it amounts to \$54.00 per car. From 31 points of origin in the 5 proposed groups the reduction averages \$29.85 per car. From the same points to Cleveland, Buffalo, Detroit and Chicago the average reduction is \$31.64 per car while to Kansas City, Omaha and St. Paul it is \$33.45 per car.

In order, therefore, to accurately estimate the amount of total reduction recommended one would have to know the origin and destination of the number of cars shipped from each point of origin to each destination.

#### Vegetables Greatly Handicapped

In his conclusions, the Examiner finds among other things that the rates on vegetables n.o.s. under existing minima and methods of publishing are not excessive or unreasonably high. The Examiner further found that there is no apparent reason why the future rates on vegetables n.o.s. should yield less than the revenue per car on citrus which he prescribed.

In order to produce the same approximate revenue per car load on a minimum on 21,000 pounds of 421 standard crates, the Examiner concluded that the rates should be 154% of the rate per hundred pounds which he recommended for citrus. In other words, based on the recom-

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# BLUE GOOSE NEWS

*Monthly News of American Fruit Growers Inc.*

*Edited by The Growers Service Department*



VOLUME 1.—No. 10.

ORLANDO, FLORIDA, MARCH, 1, 1927

PAGE 1

## SPANISH CITRUS PRODUCTION LARGE

In the January issue of the BLUE GOOSE NEWS mention was made of advices then just received of severe freeze damage to the Spanish orange crop. This is a reminder to growers that Spain indeed is the home of the commercial orange industry, which has continued to flourish there over a period of centuries, and which holds more than ordinary interest to Florida growers who consider themselves modern and up to date.

The naranja (orange) is an important crop item to large areas in southern Spain, where harvesting the crop begins in November and does not end until the following July. The crop is picked by both men and women who work, however, only during intervals of very dry weather during the picking season. Wet weather is not uncommon during the time the crop is gathered there, so that picking activities are quite intermittent.

The fruit is carried to packing houses or sheds by wagon or by baskets on mule back. The interior of one of these packing houses would give the manager of an American packing house a nightmare, because of the free manner in which straw is laid about on the floors and elsewhere, and upon which the fruit is piled. Care is taken to keep piles of fruit small, and to avoid rough handling, though seemingly the Spanish orange will stand up under rougher treatment than will the Florida fruit.

Trees generally are given excellent care, producing small bright, and deliciously flavored fruit, which finds a favorable market in many outside countries where consumption of these Spanish oranges has been a habit for a great many generations. The fruit is most carefully packed and is very attractively wrapped. Low labor costs naturally result in the absence of many of the labor-saving appliances to be met in Florida citrus packing houses, but the abundant and cheap labor in Spain like-

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## LOWER EAST COAST COMING OUT NICELY

The following received from L. L. Chandler, president of Goulds Growers Inc., at Goulds in Dade County is very interesting:

"We have had a number of nice showers since the first part of January, and where groves have been fertilized properly, and cared for, we have gotten a wonderful Spring growth. In most instances there was a good early bloom on the grapefruit trees, the orange bloom being more regular as is normally the case. As is generally known it is our policy in this section to work for an early bloom and produce an early crop of grapefruit.

"It is very gratifying to us here that even with the two severe storms and our trees badly upset, many being blown over, that we have been able to get this early bloom, which should be of great advantage to us in the next shipping season.

"There are, however, quite a few groves in this section which are not being cared for properly, due to abnormal financial conditions and the further fact that many were purchased for pure speculation. These groves, of course, do not show up well, and will not produce the fruit they should if given proper care.

"We look to be in line for a fairly normal crop next season with production upon practically all of the trees excepting those actually blown over and up-rooted during the big storm."

## WIN MANY PRIZES AT VOLUSIA FAIR

Volusia Growers Inc. of DeLand, shipping through the American Fruit Growers Inc., were successful in winning many prizes for their fruit at the recent Volusia County Fair. A total of seven prizes were obtained, as follows:

- Best citrus exhibit.
- Best Packed box of Oranges.
- Best Packed box of Tangerines.
- Best Packed box of Grapefruit.

## CITRUS REVIEW AND MARKET OUTLOOK

By F. L. Skelly

Shipments out of the state during February were a little in excess of seven thousand cars. This was a very heavy movement but was due to the fact that many growers, on account of the dry weather being experienced, wanted to move their fruit. Prices during February were generally low, with the exception of the best fruit under the well known trade-names.

The first of March it was the consensus of opinion that there are remaining at this time about thirty five hundred to four thousand cars of oranges to be shipped and between forty five hundred to five thousand cars of grapefruit.

The first week in March there was a steady inquiry and better prices being realized generally on fruit free from frost. There has been considerable fruit condemned on the other end of the line on account of frost damage and showing dryness. We believe from this time forward shippers on the whole will be more careful; and packing house managers will see to it that no fruit of questionable quality goes forward to the northern markets.

Therefore, excellent prices should be realized on the good fruit that remains in this state, and exceptionally high prices should be realized on grapefruit on account of the little competition we have on grapefruit from other sections.

California probably has remaining twelve thousand cars of navels to be shipped. The Valencia crop is estimated at from twenty five thousand to thirty thousand cars to be moved throughout the Summer and early Fall.

Homosassa oranges.

Jaffa oranges.

Ruby Blood oranges.

L. F. Chapman, manager of Volusia Growers Inc. obtained what he was

Continued on page 2

## BLUE GOOSE NEWS

OFFICIAL publication of the American Fruit Growers Inc., Growers Service Department, published the first of each month in the interest of the citrus growers of the state of Florida.

**EDITORIAL ROOMS**  
502 Yowell-Drew Building  
**ORLANDO, FLORIDA**



### OLD STUFF

A baker's dozen of years are not many, when you come to look backward, but a lot of things can happen in that period. Recently we had occasion to while away an idle hour looking over the files of a newspaper in the citrus belt covering the years of 1912-13 and 14, and some of the things we ran across may be worth repeating:

A Eustis-packing house was then the largest in the state, though it was accepted that one in Fort Myers was more completely equipped.

Rube Allyn's photograph adorned the pages of Florida newspapers.

Robert J. (Bob) Holly was president of the Florida State Press Association, looking just a little older than he does now.

The Lue Gim Gong orange was being strongly touted; and the late William Chase Temple was suggesting it might prove the solution of Florida's problem—to produce oranges the year 'round instead of only seasonly.

Jefferson Thomas was newly come from Pennsylvania to become a Florida fixture.

Colonel Clarence Woods was defeated for the legislature in Lake County.

A cooperative selling organization was advertising that in another season it should control fifty per cent or more of the Florida citrus tonnage.

The shipping of green fruit was being lambasted in the press by experienced growers.

(Adv.)

Good roads in Florida were just being agitated in earnest, and Lake County carried a big bond election for roads amid excitement in spite of considerable opposition.

Growers traveled by train instead of automobile to attend meetings of the Horticultural Society.

Edgar A. Wright came from California to edit The Florida Grower.

William Gomme was making his advent into citrus prominence, just then becoming county agent for Lake County.

Frank L. Skelly who had been in the north, bossing the sale of Florida citrus, was called to Florida to be general salesmanager of the Florida Citrus Exchange.

Dusting hadn't been thought of; fumigation was unknown; but an 8,500,000 box Florida citrus crop brought talk of overproduction.

### WINTER HAVEN MEN ENJOY BANQUET

A banquet was given at the Haven hotel at Winter Haven by the officers and directors of the Winter Haven Growers Inc. which was greatly enjoyed by those present.

John F. May, secretary-treasurer, presided at the request of President Arthur Klemm Jr., Frank L. Skelly addressed the meeting, dealing strongly with the shipment of frost-damaged and dry fruit from many packers and vigorously condemning the practice. R. B. Woolfolk in his talk showed the optimistic view which may be taken of recent events in the industry, and predicted a stabilized and most satisfactory market to close the present season.

Twenty-two of the officers, stockholders and directors of Winter Haven Growers Inc. were in attendance, including President Klemm, Dr. J. E. Crump, vice-president; E. H. Lusk, assistant treasurer and office manager, and Otis Turner superintendent of the packing house.

### PROMINENCE GIVEN CITRUS SHIPPERS

A special rotogravure section of the DeLand Daily News of February 15 gave unusual prominence to two Blue Goose shippers in that territory.

A double page spread in the center of the paper was given over to the splendid Strawn packing house at DeLeon Springs. Six illustrations of the interior and exterior were shown,

in addition to the reproduction of a fine photograph of the late Theodore Strawn whose long continued effort did so much to set an example in the advantages of the better packing of good grade Florida oranges and grapefruit.

Elsewhere in the same issue was shown the packing house of J. P. Mace & Son at Lake Helen, together with reproductions of the photographs of J. P. Mace, and Loring P. Mace, and their residences at Lake Helen.

### UNUSUAL DESIGNS FOR CITRUS SERVING

Mrs. Caroline Moorehead of Ocala, a domestic scientist of unusual attainment whose work in the North at various times has perhaps done more to familiarize women with the proper utilization of Florida oranges and grapefruit than has been done through any other single agency, has now invented, or designed, a set of special dishes to be used in the more elaborate serving of Florida oranges and grapefruit.

Mrs. Moorehead's plans are not yet complete, but it is understood she may seek the aid of Florida growers and marketing agencies in placing these dishes within the reach of northern housewives.

### WIN MANY PRIZES AT VOLUSIA FAIR

Continued from page 1  
sure was an original Blue Gander, and he was an important part of the exhibit, attracting a great deal of attention. However, on the second day "he" proceeded to lay a very large and genuine egg, thus proving to be a true Blue Goose for the egg was of a deep golden color. At least it was when later exhibited to the gaze of passersby.

#### Plain to Be Seen

"No, you can't see Mr. Reflux," said Mrs. Reflux to the political canvasser at the door.

"But—But," stuttered the caller, meekly, "I just wanted to find out what party he belongs to."

"Well, then, take a good look at me," came the answer as the door was closed in the caller's face.

"Why did the editor refuse your story?"

"He said it didn't come up to the standard of the advertisements."



Blue Goose Grapefruit, Oranges and Apples Displayed in a Pittsburgh Store

**SPANISH CITRUS****PRODUCTION LARGE**

Continued from page 1  
wise permits of more, and more careful, hand-operations than are used here.

Recently we read that the Spanish crop normally is approximately thirty millions of boxes. Presumably this figure was translated to match the size of the Florida box, for the standard Spanish boxes used in the bulk of their export trade carry from 420 to 1120 oranges per box. Upon the basis of Spanish boxes the export figure is given as about ten millions.

Naturally, to carry this greater weight, the Spanish box is more heavily and substantially made than are the boxes used by California or Florida. The standard box is thirty-eight inches long, sixteen inches wide and twelve and one-half inches high. This is divided into three compartments, instead of the two compartments used in the producing portions of

the United States. The center compartment is ten inches long, sixteen inches wide, and is flanked on each side by a compartment thirteen inches long and sixteen inches wide.

Below are the packs used for three Spanish standard sixes, which will give Florida growers and packers an accurate idea of the methods used.

Pack	Left	Center	Right
420	6x5x5 deep	6x4x5	6x5x5
714	7x6x6	7x5x6	6x5x5
1120	8x7x7	8x6x7	8x7x7

Exports from the port of Valencia by sea approximate six million Spanish boxes yearly. From the port of Cartagena to the south, embracing the region of Murcia, approximately half a million boxes are exported. It is reported that only about fifty thousand boxes annually are shipped out by rail; but it is estimated that more than thirteen thousand wagon loads of fruit in bulk pass the French

frontier.

In addition to large direct sales to France, Spanish oranges are exported to London, Manchester, Liverpool, Bristol, Hull, Newcastle, Glasgow, Cardiff, Amsterdam, Rotterdam, Amherst, Hamburg, Bremen, to Russian ports, and to many smaller markets.

Illustrating the high regard in which the industry is held in Spain, it is reported that following the recent freeze the Spanish government intervened to prevent the packing or shipping of oranges for two weeks thereafter, excepting fruit already cut and stored before cold descended.

Grapefruit is not produced in Spain, its origin being credited to hybridization in Florida since the Civil War. A small amount of grapefruit is sold in Spain, consumption being confined to the wealthy few; and of this grapefruit by far the greater part bears the well known BLUE GOOSE trademark of the American Fruit Growers Inc.

Twenty

THE CITRUS INDUSTRY

March, 1927

Page 4

BLUE GOOSE NEWS

March 1, 1927

UNIFORMLY



THE BEST

## Plain Talk

Some continue to advocate that control of volume in the Florida citrus crop will carry with it control of prices. In view of the experience of other sections with perishable foodstuffs this seems very doubtful.

However, if Florida growers wish to try the experiment why not select the American Fruit Growers Inc. to carry it out? This may not be modest talk, but we respectfully submit that this organization should obtain unusual consideration, because:

It has greatest sales force . . . is non-speculative . . . is commercially efficient . . . has best and best advertised trademark . . . obtains highest regard of the trade . . . sets the pace in progressive packing and merchandising . . . its present volume of Florida citrus is exceeded by only one agency . . . rapid and steady growth establishes unusually satisfactory service to growers . . . . . Think it over.

## American Fruit Growers Inc.

Orlando, Florida

DEPENDABLE



QUALITY

*Refrigeration Cars*

# Hearing Upon Refrigeration Rates From Florida Set for Mason Hotel, Jacksonville, March 21st

The Hearing on Refrigeration Rates applying on perishables produced in Florida and four other southern states, will begin at Jacksonville, March 21st, before Commissioners Eastman and Director Bartel of the Interstate Commerce Commission, according to advice from the Commission received by Mr. J. Curtis Robinson, Secretary-Manager of the Growers and Shippers League of Florida.

This Investigation, which was ordered by the Interstate Commerce Commission, involves the refrigeration rates on fruits, vegetables, berries and melons produced in Georgia, North and South Carolina, Virginia and Florida.

No specific figures are available at this time to show the quantity of fruits and vegetables involved. Figures show total shipments from the five states in 1924 were 214,132 carloads, in 1925 were 182,177 carloads. The 1926 figures are not yet available. Of this number Florida produced and shipped in 1924, 94,642 cars, and 82,505 cars in 1925.

It is impossible accurately to estimate the proportion moving under refrigeration where the rates might be affected by the proposed investigation. It is estimated, however, that at least 36,000 carloads of perishables move annually from Florida under some method of refrigeration.

The railroads in southern territory operating within the states mentioned in the Commissioner's Order are obligated to furnish protective service to perishable traffic which originates in great volume in these states. For many years it has been their custom to furnish this protective service through the agency of the Fruit Growers Express whose capital stock is owned by several of the railroad companies operating in the south. It is understood that this refrigerator car line contends that the refrigeration rates now charged on perishables from the five southern states to official classification territory are unduly low and not sufficiently compensatory for the service rendered.

It is understood the investigation of the refrigeration rates from the south ordered by the Interstate Commerce Commission is upon request of the Refrigerator Car Line.

During the period of Federal Control in 1919 the Director General proposed the establishment of stated

refrigeration and other icing charges, the unification of all rules, regulations and practices of the carriers in connection therewith and their incorporation and publication in one single tariff. The charges for service to be rendered as proposed in the tariff had already been effective in certain sections in the country when the Director General submitted the question of their propriety to the Interstate Commerce Commission. This was in the section of the country where the Fruit Growers Express, Inc., then operated, namely in Florida and other southeastern territory. The charges as proposed in the tariff had been made effective prior to the establishment of the tariff in other territories and prior to the investigation which the Director General asked the Commission to make.

The Railroad Commission of Florida believed the proposed stated refrigeration rates upon fruits and vegetables from Florida as they had been increased prior to the general investigation by the Interstate Commerce Commission were unreasonable and filed a Complaint in September 1919. In the Commission's decision in July, 1921, it held that the refrigeration charges upon fruits and vegetables were unreasonable in that they were based upon excessive quantity of ice and the carriers were directed to reduce their charges accordingly. (61 ICC-438). Subsequently after re-hearing the Commission slightly modified its first decision with respect to refrigeration charges and found the carriers were entitled to slightly more than the commission had originally found they should have. (74 ICC. 157, Decided November 1922). This latest decision had the effect of reducing the stated refrigeration charges on perishables out of Florida by a very substantial amount on the average probably around \$10,000 per car. The Florida shippers have had the benefit of this reduction on all shipments made since November 1922.

The carriers, however, were dissatisfied with the Commission's decision, and sought to restore the charges but were prevented by the decision of the Commission in 85 ICC. 247, decided July 24, 1924.

According to Mr. Robinson of the Growers and Shippers League the carriers are still dissatisfied with the decision of the commission and have

now determined apparently to attempt to prove to the commission that the refrigeration rates from Florida should be increased. If there are 36,000 cars moved by refrigeration from Florida, annually, and the rates should be increased \$10.00 per car it would amount to an increase of \$360,000.00 annually. If these rates should be increased only \$5.00 per car it would amount to \$180,000.00, annually.

According to Mr. Robinson the growers and shippers by uniting their efforts succeeded once before in preventing an increase of approximately \$10.00 per car and it behooves them now to rally together and put up a determined fight against further in-

Continued on page 26

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Citrus Fruits, Florida

## THE CITRUS INDUSTRY

# What's the Matter With the Florida Citrus Industry

An Interview With E. F. Wooten, Grove Owner Near Odessa, Fla., Secured by Russell Raymond Voorhees

There has been and still is a lot of talk about the Florida citrus industry and the prices that are being paid for Florida fruit in comparison with the prices that are paid for California fruit. This is one of the live questions with the citrus industry in this state and so any thought from grove owners which hits the nail on the head is of value to the entire industry.

S. F. Wooten, a grove owner near Odessa on Lake Fern has given this question considerable thought of late and feels that the solution of the problem lies entirely with factors within the state. Let's have Mr. Wooten express himself on this question—"What's the matter with the Florida Citrus Industry."

"The one thing, I believe," says Mr. Wooten, "that will put the Florida citrus industry where I believe it belongs and that will stabilize it and result in greater profits to the grove owners and packers, too, is the elimination of all inferior fruit in out of state shipments. If the Florida citrus fruit market is put on a strictly quality basis, then, I feel we will be on the royal road to greater success and greater profits."

"When I speak of inferior fruit I do not mean culls because for the most part, if not entirely, culls are already eliminated. But I do mean that no fruit should be shipped from the state that does not look and taste like first quality fruit. The public, which in the end is the judge, buys on appearances in most instances and so if a fruit looks fine they will buy it. And in most instances if a fruit LOOKS fine it will BE fine.

"I know the packing houses are doing about all they can do in this direction but I believe that the growers could do more. In fact I would say that they can do much toward a solution of this problem. If it is remembered that a few loads of inferior quality fruit coming into a packing house and possibly going out with better quality fruit tends to lower the average quality of the entire output then the wisdom of bringing into the packing house only quality fruit should be apparent.

"In my all too brief experience as a grower of citrus fruits I have noticed in far too many instances that growers seem to be willing to sacrifice quality for quantity, never real-

izing that in the end they make less money even though they have a greater yield of inferior fruit. I am fully convinced that the grower who will bend every effort toward obtaining the best quality fruit that his groves are capable of producing, despite the lowered quantity that he might obtain will in the end find that he is ahead of the game financially. Better fruit pays better profits and so while the quantity may be less the total return, which is what really counts, will be greater. It is surprising when one gets down to actual facts to find how quickly prices are lowered by even a small shipment of inferior fruit. It would seem to me that here is a fertile field for everyone connected with the citrus industry. Let us all bend every effort toward making the Florida citrus crop better, in appearance, in quality, and the quantity will take care of itself. So will the profits."

#### FLORIDA'S RESPONSIBILITY FOR DECLINING PRICES

Continued from page 15  
cusing and re-focusing groups to a point where the democratic idea of purpose is greatly neutralized, before it can reach a point of few enough executives for decisive action.

The citrus industry of Florida needs cooperation. Which group is most able and willing to cooperate remains yet to be determined. Necessity in the end will impel one or both towards the forward steps we must eventually take.

#### FLORIDA MAN APPOINTED GENERAL CHAIRMAN TRANSPORTATION COMMITTEE OF A NATIONAL ORGANIZATION

Continued from page 11  
Traffic, Claims, Reconsignment and Diversion, Express, Telephone and Telegraph, Demurrage and Terminal and Docks Committees and is expected generally to supervise their work and reports to the Association.

Mr. Robinson has been a member of the National Association practically since its organization in 1917 and has served on its Traffic, Claims and other Transportation Committees practically since its organization. In 1925 Mr. Robinson was Chairman of the Traffic Committee. The Association's members handle between 600,000 and 700,000 cars of perishables, annually. Its membership has grown from a small beginning until it now

March, 1927

includes the most important shippers of perishables in the country. Its Transportation Committee has dur-

## A SPRING "CLEAN-UP" FOR YOUR TREES

Because of its wide margin of safety VOLCK may be used as a spring clean-up for citrus trees with exceptional results.

By proper timing of the application, you kill the scale, check rust mite, destroy white fly, and get very satisfactory control of aphid.

A Spring clean-up not only controls the several species of insect pests at the same time, but gives protection to the trees when it is most needed.

Talk with your nearest VOLCK representative now about a Spring clean-up for the trees.



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March, 1927

ing past years rendered invaluable service to its members and is recognized by the carriers to include on its committees the leading traffic men of the fruit and vegetable industry.

#### THE CITRUS INDUSTRY

Florida is indeed honored by this recognition of one of its men as General Chairman of the Transportation Committee.

Angry Motorist: Some of you

Twenty-three

pedestrians walk along just as if you owned the streets.

Irate Pedestrian: Yes, and some of you motorists drive around just as if you owned the car.—Judge.

**V-C FERTILIZER GUIDE  
for CITRUS GROWERS**

For your selection we recommend (with due regard to type of land and seasonal conditions):

**Spring Application**

	Am.	A.P.A.	Po.
	%	%	%
V-C No. 2 Orange Tree	3	8	5
V-C Citrus Special	3	7	8
V-C Orange Fruiter	4	6	8
V-C 388 Citrus Special	3	8	8
V-C Fruit grower formula	4	8	5

**Young Citrus and Nursery**

	Am.	A.P.A.	Po.
	%	%	%
V-C Nursery Special	4	8	3
V-C Special for Young Trees	5	7	3

*Fertilize for a Full Set of Fruit  
Use V-C Fertilizers Made for Citrus*

SPRING is the time to see that your grove is getting the kind of plant food it needs. Your trees are now preparing for new growth. They require the kind of fertilizer that will not only set but develop the new fruit. Expert citrus growers have found that it pays to use the best fertilizer they can get. Results are what count in grove management. V-C Fertilizers are prepared with the greatest care and are made to meet the exacting demands of citrus. We count among our customers some of the most successful grove owners in Florida--the men who have produced prize fruit.

The results secured by our customers are the best testimonials we can offer as to the value of V-C Fertilizers for citrus.

Ask your dealer for the V-C Brands named in the chart, or, write our office at Jacksonville.



**Virginia-Carolina Chemical  
Corporation**

Jacksonville

Florida

# IMPRESSIONS

By The Impressionist

A man laughing heartily on a verandah, a copy of the February issue of THE CITRUS INDUSTRY before him. Our curiosity readily satisfied. We also laugh, somewhat ruefully: We had intended to mention Wm. Justice Lee's naval title, and the inspired linotyper had made indecent reference to a "navel" title that we had not known to exist. Also we had tried to say that he is now a partner in Station WOCB at Orlando; and that also had unfortunately gotten mixed up. We have carefully stayed away from Wm. Justice Lee the past thirty days. Such is life.

Mrs. Dr. J. H. Ross in her home at Winter Haven; a likeable little old lady, beloved of a city, a county, and of those who constitute the Who's Who in the citrus business of Florida. During his lifetime Dr. Ross' home was a mecca for citrus men, "independents" and cooperative market-

ing advocates alike, and of notables in other lines both from inside and outside of Florida, who dropped in for contact with a truly great mentality and a potent philosophy regardless of whether or not they were in full agreement with the revered Doctor's activities. Today those who were privileged to be most familiar with that household turn aside in passing through Winter Haven and drop in for a chat with Mrs. Ross; and she is unaffectedly glad to see them. A great light has gone out of her life, her health is not the best; but her mental vigor is undimmed. In good faith we suggest installing a radio set, to provide a proper and unfailing source for petty and immediate worry.

Iron Mountain at Mountain Lake near Lake Wales, the Clubhouse Point at Lakeland Highlands, and Observation Hill at Hickory Hills

near Brooksville, there are three unmatched points of view in Florida. They are revelations to those from outside the state who have been accustomed to think of Florida as a flatland; they are an inspiration to Floridians for the marvelous views which unfold from their summits. We hope we are never so busy as to pass them by and neglect the opportunities temporarily to expand our horizon even though it be for only a few moments at a time. Comparisons are odious, we intend nothing of the sort knowing that the actual figures as to height above sea level can be brought forward to confute us, but somehow Observation Hill leaves upon us the impression of being fairly close to the top of the world.

Small citrus trees greening beautifully, miles and miles of them over many counties, where only a few

## COPPER SULPHATE

(Blue Vitriol)

The basis of Bordeaux Mixture  
(Copper Sulphate and slaked lime)

### Nichols Triangle Brand Copper Sulphate

Large and small crystals, pulverized—99% Pure

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# MONEY



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FREE—Ten thousand pounds of any NACO BRAND fertilizer for the best true letter about Results of Using Fertilizer in 1926.

Our new price list is now ready.  
Write for it.

**NITRATE AGENCIES**  
**COMPANY**

Jacksonville, Florida

March, 1927

weeks ago it looked as if Jack Frost had laid grip upon them with no intention of relinquishing. Growers beginning to prune, and to worry about aphids and other things, but truly glad down inside themselves because the one big worry has been dissipated.

Victor B. Newton in deadly earnest about resigning and not accepting reelection as president of the Fruitman's Club, all because of his health which has not been good the past few months, in fact ever since he was burned when his boat exploded and took fire. Many other leaders of the industry considerably exercised and calling or writing letters to say he must stay put. For no man perhaps ever has shown greater ability to command the confidence of all the diverse elements comprised in that organization and to harmonize its ideas and efforts.

Frank Palmisano of Cincinnati contending that he knows by heart all the principal brands of the six hundred designating various Florida citrus fruits. We are somewhat incredulous, although he has been actively handling Florida citrus fruits for many years. Our neighbors at the table have nothing to say but apparently look dubious, so we start the inquisition or examination. All fine until we ask who ships "Stag," brand, and then we have him stumped. Then the laugh is on us, boisterous, uproarious, because it was a slip of the tongue. We had meant "Elk" brand which S. J. (Uncle Jeff) Sligh has shipped for over a quarter of a century, and as for "Stag" there ain't no such animal in the Florida citrus world, though almost every other bird or beast that Noah took into the ark is represented. We are so discomfited and the balance of the party so elated that Frank Palmisano insists upon paying for the lunches to restore our poise.

How the world do move. An old catalog of the Ocklawaha Nurseries, season of 1901-1902, and the late O. W. Conner stating on the cover, "Our specialty is grafted trees." Only twenty-five years ago, so to speak, but almost all the nursery stock then was grafted and not budded, as is the modern practice. From the beginnings of the industry in Florida roundabout Green Cove Springs down to that time and for a number of years later the best commercial citrus trees were either seedlings or were grafted. On the theory that the fit survive this old catalog is interesting further in the varieties

## THE CITRUS INDUSTRY

listed. They are: Parson Brown, Boone's Early, Sanford's Mediterranean, Centennial, Satsuma, the Dancey Tangerine, the Mandarin, Ruby Blood, St. Michael's Blood, Majorca, Riverside, Washington Navel, Jaffa, Homosassa, Hart's Late or Tardiff, Valencia, Pineapple, St. Michael Paper Rind, King, and the Maltese Straight orange. In grapefruit the varieties given are: Boen Late, Walters, Aurantium, Triumph, Silver Cluster and Marsh Seedless. Also it is more than interesting to note that in those days it was possible to buy the best nursery trees at from \$18 to \$35 per hundred.

Fumigation making strides in Florida at last, after years of intermittent, unsuccessful endeavor. The reason, abandonment of the old method first successful in California and adoption of a new method suited to Florida conditions. We say as much, and a jocular friend opines fumigation practice in Florida would grow much faster if the growers were free to crawl in under the tents and watch the stuff work, rather than to have to watch from outside.

Twenty-five

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to injure your trees and crop. Stop loss thru attacks of Citrus Aphis by spraying or dusting with "Black Leaf 40", the "Old Reliable". It costs but a few cents per tree. Kills not only by direct contact (hitting) but in extra measure by the nicotine fumes. This "extra measure" of protection you cannot obtain from the non-volatile insecticides.

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"Black Leaf 40"  
40% Nicotine



1. Citrus Fruit, Frosty

2. Singleton; Gray

Twenty-six

## New Process For Determining Cold Damage to Fruit

By R. S. Hanford, Manager Fort Meade Chamber of Commerce

Thousands of dollars will be added to the wealth of the citrus growers of Florida as a result of the discovery by Gray Singleton, an engineer of Fort Meade, of a new process for discovering citrus fruit damaged by cold, according to citrus experts.

Announcement of the new Singleton process was made by an official of Gentile Brothers, who finally induced Mr. Singleton to make public the results of the work he has been carrying on for weeks. The process consists of putting all fruit as it comes from the groves into large tanks or vats containing flotation oils in certain combination. The good fruit shows a high specific gravity, and the damaged fruit a much lower gravity.

Mr. Singleton is applying for a patent on the process but says that he will permit any Florida packing plant to use the process without cost in order that Florida fruit may be restored in favor with Northern buyers.

The process was perfected after weeks of patient experimental work in the plant of the Bowling Green Citrus association, which turned over their plant to Mr. Singleton. Gentile Brothers financed the work of perfecting the process, and the Standard Oil and American Cyanamid companies cooperated by contributing quantities of various grades of flotation oils which are used in the process.

Citrus experts who have witnessed demonstrations of the process declare that millions of boxes of citrus fruit now on the trees in Florida can, by the aid of the Singleton process, be sorted and packed with perfect confidence that the fruit will pass all inspections after reaching the Northern markets. Use of the process will restore the confidence of buyers in Florida fruit which has been reaching the markets in deplorable condition, it is said.

According to Mr. Singleton the process can be installed in any packing house where vats and tanks are available without change in arrangement or adding expensive equipment. The cost of putting fruit through the process averages about one cent per box.

"The process is simple and is only the result of scientific experiments to

## THE CITRUS INDUSTRY

find what certain flotation oils would give the desired results," says Mr. Singleton. "I found that good oranges have a specific gravity of about .95 and that on oranges damaged by frost the gravity runs from .85 downward. Using a special flotation oil of about 90 specific gravity results in the removal of all fruit damaged during the freezes which we experienced this winter. California tried to perfect this process but failed to overcome the objection of oil remaining on the fruit. This has been successfully overcome by my process."

Officials of the Florida Citrus Exchange are showing great interest in the Singleton process and the inventor has been asked to make demon-

strations at several packing plants controlled by this organization.

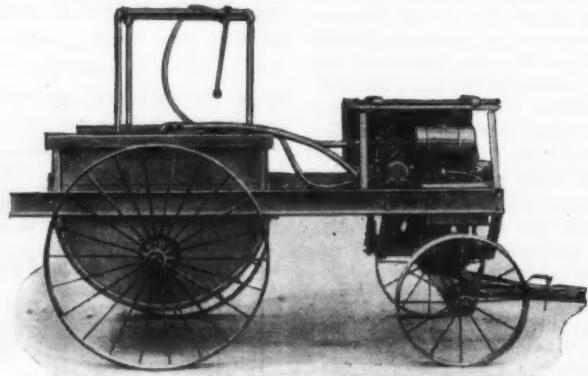
March, 1927

## HEARING UPON REFRIGERATION RATES FROM FLORIDA SET FOR MASON HOTEL JACKSONVILLE, MARCH 21ST

Continued from page 21

creases in their refrigeration rates. The League has employed Mr. C. R. Marshall of Washington, D. C. an experienced Commerce Counsel and considered by them to be one of the best in the United States, to represent them in the hearing. Mr. Marshall was examiner for the Commission in charge of the investigation of the refrigeration rates proposed by the Director General and held hearings all over the United States.

## SPRAY FOR PROFITS THIS YEAR! CHOOSE A "FRIEND" TO HELP YOU



### STEADY - STURDY SIMPLE - SUPREME "FRIEND" SPRAYERS

The success of these beautiful spraying outfits is entirely due to the continued satisfaction they have given to the most successful growers year after year.

SATISFIED users of "Friend" sprayers write and say that a "Friend" will give 10 or 12 years of very hard service under all conditions. Then because a "Friend" lends itself so well to re-building at so small cost, the machine can be over-hauled and re-built and give the same dependable service as when new for 6, 7 years or more. They also report that a 10 or 12 year old "Friend" is often worth 25 to 40% of its original value. You can readily understand, we believe, that it's a mighty good sprayer that is worth 25 to 40% of first cost after years of service. Honest manufacturing makes this unparalleled service possible. If interested in this kind of service write for our Big 48 page Sprayer Catalog. It's Free. Also ask for name of nearest Florida Dealer.

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### HERE'S A SURPRISE

A New Low Price, high quality, orchard sprayer for the small grower. This new rig is a little wonder. Simple-Sturdy-Durable. Capacity for 1 lead hose. 2 H.P. 100 gal. tank. Sold with or without truck. Also without engine if desired. Present low price guaranteed for a short time only. Write to-day for circular and full information.



March, 1927

## CONTROL OF CITRUS MELANOSES AND STEM-END ROT

Continued from page 10

through all steps from the time the fruit leaves the tree until it is consumed.

Pruning out dead wood also tends to reduce melanose infection on leaves and fruit. As has been stated, it is impossible in practice to remove all melanose-harboring material from a large tree. Pruning is a slow and expensive operation. Ordinary commercial pruning out of dead wood, such as is required in good grove practice, will lessen the chances for severe melanose infection, but can not be depended upon to give entire control. Where there is an excessively large amount of dead wood, good commercial pruning should be practiced, along with spraying with Bordeaux mixture, both being completed before the onset of rains in May. With an average amount of dead wood, the spraying alone will give very satisfactory melanose control. Where frost damage has resulted in the death of numerous twigs and limbs, removal of this dead wood as a protection against an unusual outbreak of melanose is particularly important. The work may be begun as soon as the putting out of new growth gives indication of the extent of the killing back and when danger of further freeze injury is past. Care should be taken not to leave projecting stubs. In so far as melanose is concerned, there will be a distinct advantage in completing this work before the summer rainy season. After the 1917 freeze trees cleared of dead wood before June were little affected with melanose and made the best recovery. These pruned each month later had progressively more and more melanose infection. In some cases it was severe enough to retard seriously the recovery of the trees. In bearing trees the protection of the fruit from excessive melanose infection is a strong argument for prompt removal of the excess of dead wood. Care must be taken to avoid injuring the young fruit or the new flushes during the pruning operations.

There has been some indications that spraying with Bodreaux-oil prevents melanose infection in a two-fold way, first by covering the susceptible fruit and shoots with a protective coating, and second by possibly reducing the supply or vitality of infective fungus spores from dead twigs that have been coated with the spray. It may be a good thing in some instances to try and application of Bordeaux oil before the summer rains set in, primarily for coat-

## THE CITRUS INDUSTRY

ing dead wood that can not be removed promptly. Judging from melanose conditions in some groves in 1917, such spray protection of new growth would probably prove a paying proposition, even where there is no fruit to protect.

To summarize: One application of 3-3-50 Bordeaux plus 1% of oil as emulsion, applied to old seedling orange or grapefruit trees between April 15 and May 5 can be depended upon to control melanose satisfactorily. This application in experiments covering six seasons has reduced the chances for stem-end rot development about one-third to one-half during an ordinary marketing period. It has also tended to prevent am-

## Twenty-seven

moniation and other dieback symptoms. Precautions must be taken to control scale insect increase following the use of Bordeaux mixture by spraying thoroughly with oil emulsion before July 10, and to avoid any errors in mixing or applying that might induce spray injury. Pruning out dead wood, such as would be followed in good grove practice, lessens the chances for stem-end rot development and aids in securing most effective spray control. When dead wood is excessive, as after freeze injury, such removal becomes especially important and should be completed, if at all practicable, before the summer rains set in.



## What Prof. Mapes Did in 1847 The Good Farmer Does in 1927

"I'll go to the crop", said Prof. James J. Mapes, originator of Mapes Manures. "I'll ask the crop to tell me what fertilizer it needs". Although famous as an expert chemist, Prof. Mapes knew that he could not depend on chemical analysis alone. So, in 1847, he bought a farm to check up, in the field, what he had learned in the laboratory.

The good farmer of today knows, as Prof. Mapes did eighty years ago, that the crop is the best judge of fertilizer values. He knows that two fertilizers of the same analysis may give widely different results because of the different materials from which they are formulated. So he buys his fertilizer on the basis of crop results, not on analysis alone.

That is why Mapes users are so loyal to Mapes Manures. And that is why more good farmers every year are becoming Mapes users. We go to the crop; we ask it what materials it likes best; we put these materials into Mapes Manures. Mapes Manures are made to grow good crops—not to sell at a price. They are first made right, then priced as low as possible.

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We are issuing a series of leaflets to tell you each month about the care and fertilization of your grove. The fertilizer recommendations are based on Mapes System of Fertilization which is being followed so successfully by many of the best citrus growers in Florida. These leaflets are designed to help you to secure greater production and larger profits from your grove. If you have not been receiving them, mail the coupon today.

### The Mapes Formula & Peruvian Guano Co., Dept. 16

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Will you please add my name to your mailing list so that I will receive the leaflets on Citrus Culture? This does not obligate me in any manner.

My grove consists of \_\_\_\_\_ bearing trees and \_\_\_\_\_ young trees.

My grove is located at \_\_\_\_\_

My name is \_\_\_\_\_

My address is \_\_\_\_\_

**MAPES**  
Manures  
cost little more ~ worth much more

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**FLORIDA STATE HORTI-CULTURAL SOCIETY MEETS AT BRADENTON IN APRIL**

Continued from page 5  
could greatly profit by attending the meeting and getting the viewpoints and opinions of the older members, and the Society cordially invites them to attend.

**THE ELIMINATION OF WASTE IN THE CITRUS INDUSTRY**

Continued from page 8  
able for citrus is restricted and tends to become more limited as other land developments take up the interest of the people of Florida. All Florida asks is a square deal and no favor; the citrus industry will work out its own problems, although some of us interested would like to see a little more speed in the process of solving them.

**CITRUS COMMENTS**

Continued from page 9  
fore the summer rains begin. A little more regarding Melanose control will appear in next month's issue.

**General Suggestions**

Be sure to watch for rust mites on all late fruit.

Pineapple oranges began drying out earliest this year. In some cases this was due to frost injury. In other cases no frost injury was apparent and the best explanation seems to be that the trees were put into a dormant condition by the three cold spells in December and January. This must have caused the trees to consider the fruit ripe earlier than usual and the result a natural drying out at the stem end.

Do not fail to watch your branches particularly those on lemon stock regarding drying out.

**"AWARD OF REPARATION"**

The Interstate Commerce Commission under date of February 14th issued an Order in Docket 16177 awarding reparation of a total of \$2252.98 to Florida Shippers. This Docket, known as the Short Refrigerator Car Case, involves the case of the Railroad Commission of the State of Florida vs. The Aberdeen and Rockfish Railroad Company et al., which was heard in Orlando, November 1924.

The Growers and Shippers League and some of its members appealed to the Commission to require the carriers to adopt a minimum for short cars, when furnished by them at their convenience, and make refund to them of charges collected for a minimum of 350 crates which could not possibly be loaded in the

**THE CITRUS INDUSTRY**

short cars furnished.

The Commission issued its decision in November 1925 and found that the carload minimum on 350 crates of celery from Florida to interstate destinations in the United States and Canada was and for the future would be unjust and unreasonable to the extent that it exceeded or may exceed 315 crates for refrigerator cars ranging in length from 28 ft. 9 in. to 31 ft. 6 in. inside measurement.

At the hearing the shippers were

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represented by James E. Calkins, Counsel of the Railroad Commission and J. Curtis Robinson, Secretary-Manager of the Growers and Shippers League of Florida.

In the commission's recent order they have requested the carriers' interested to refund to the Intervenors, the American Fruit Growers, Inc., Sanford Truck Growers, Inc., and Chase and Company, amounts totaling \$2252.98 with interest from various dates in 1923.

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Your harvest next Fall will prove the wisdom of a liberal application of fertilizer this Spring.

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March, 1927

## THE CITRUS INDUSTRY

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# How To Raise Citrus Trees That Are Set Too Deep

An Interview With S. F. Wooten, Orange Grower, Near Odessa, Fla., Secured by Russel Raymond Voorhees

Citrus trees that are set too deep in the ground will not grow as they should and unless they obtain the proper growth they will not be the paying proposition that they should. S. F. Wooten, a grove owner near Odessa on Lake Fern had among his grove properties a planting of 700 trees, many of which were set entirely too deep in the ground. In comparison with other trees in the same section and of the same age these trees were not making the progress that they should, so Mr. Wooten decided that he would try an experiment and see whether citrus trees that were set too deep in the ground could be raised and so started on the road to greater growth. Enough time has elapsed since the experiment was performed to make a story of it worth the reading by other citrus men.

"I decided to try to raise 416 citrus trees of the Valencia orange variety that were set too deep in the ground to make the proper headway," says Mr. Wooten in discussing his experiment. "These trees were among a planting of about 700 and represented those that were set the deepest in the ground. As they stood I felt that they were not a very good citrus risk and so concluded that any sort of action was better than to allow them to grow into imperfect trees and very modest money makers.

"The first step taken was to prune the trees where the growth was vigorous. I realized that the method that I was going to follow would entail a shock and so I felt that by pruning first where the growth was vigorous I could possibly reduce that shock somewhat.

"The next step was to dig what we call a gopher hole around each tree that was to be raised. The rim of these holes was about the length of a spade handle from the tree and went about two feet below the surface of the soil.

"When the hole was dug we cut the tap root of the tree with the aid of a long handle shovel which had previously been sharpened by a file until it had a cutting edge instead of a digging edge. The other roots were not cut and were disturbed as little as possible.

"With the tap root cut we were ready to raise the tree which was done by putting a 3x6 under the center of the tree and raising the en-

tire tree as high as we wished it, using the 3x6 as a lever. When the tree had been raised to what we considered was a proper height we packed sand and water around the tap root which had been cut until we had a regular wet pack all around this root. The hole was then filled in and the tree raising had been accomplished.

"Naturally this method resulted in a shock to the trees, nothing else could be expected, but I am happy to say that none of the 416 trees that were raised by this plan have been lost. On the contrary they show far more progress than the other trees that we did not raise so I feel safe in saying that even though there was a first shock, that after this had been overcome the trees were in a far better position to attain their natural growth than before. In fact, my only regret now is that I didn't raise all of the 700 trees in this grove because the rest of them, while they were not as badly set as those that I raised, could well have been raised and profited by the experience. As it was I took only the worst cases and felt that they could be experimented with without too great a risk. The fact that the trees were raised from six to eleven inches indicated the extent of the change that was wrought.

"The total cost of raising the trees was very little. It required the services of two men and a mule and, of course, some time. But taken all in all I know it was a most profitable investment even though it was on a limited scale. The progress of the trees since the raising has proven that."

Mr. Wooten's grove is located on the Gunn Highway on Lake Fern, near Odessa, about twenty miles northwest of Tampa.

## Another Contest

One evening at the dinner table Mrs. was telling about a friend who had just won a beauty contest.

Mr. D. teasingly asked: "Did you ever get anything in a beauty contest, dear?"

"No, not in a beauty contest," was Mrs. D.'s snappy reply. "But I once got a gold ring for marrying a fellow."

Lucky is the farmer who has some good timber which can be sold in times of poor prices for other farm crops.

## PLANT CITRUS

### TREES NOW

The planting season is nearing its end and immediate action is required if you get your trees in this year.

#### TWO YEAR OLD BUDED STOCK

Ready for immediate delivery

Every tree backed by the Thomas Guarantee. The finest varieties of Parson Brown, Valencia, Pineapple Oranges and Marsh Seedless and Excelsior Grapefruit. These trees are two years old and from the best budded stock. While they last

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## When Leaves

### Turn Yellow Use

#### Nitrate of Soda

Citrus trees that are carrying a good crop and leaves that are yellowing need a little help.



A half pound to one and one half pounds per tree will maintain the health of the trees without injuring the fruit. This is used not to bring back the green color to the leaves but to prevent them getting more yellow. It will decrease the amount of dead wood following a heavy crop where the trees have yellowed.

Our State Manager in Florida can assist you solve your fertilizer problems. Our new pamphlets will be sent you if you will cut out this advertisement, write your address in the white space and mail to our nearest office. (2537)

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Montgomery, Ala.	Columbus, Ohio
Jackson, Miss.	Los Angeles, Cal.

South Fla Fair

# Agriculture at the South Florida Fair

By J. Francis Cooper, Editor Agriculture News Service

Considering the hurricane of last September, the cold weather of mid-January, and the fact that the "boom" period is over, I entered the gates of the South Florida Fair with fear and trembling lest the exhibition should not be up to the quality of past years. Once inside, however, this unnecessary fear was dispelled, and I could but marvel at the splendid showing of the great array of the state's agricultural products and indications of its possibilities. The South Florida Fair at Tampa, February 1-12, was more than ever a great agricultural exposition.

In the county exhibits, Manatee got off to an early lead, but could by no means claim to be the whole show. This county captured the blue ribbon on citrus fruits, the most prized blue ribbon in the county groups, as well as first on vegetables and subtropical fruits other than citrus. It is no wonder that Manatee's canned foods exhibit took first prize, for it contained 307 different canned and crystallized products of very high quality.

There were more counties exhibiting at the fair this year than ever before. Among the counties exhibiting this year for the first time were Orange and Duval. Orange had an attractive exhibit, but not a very extensive one. Duval had a splendid exhibit of dairy products, eggs, and pecans, along with general and truck crops. Their poster, "sugar cane, corn, and sweet potatoes grow to perfection in Duval," was backed up by ample proof.

Citrus and truck and vegetable crops featured the exhibits of Highlands, Polk, St. Lucie, Brevard, Indian River, Broward, Hardee, Pinellas, Sarasota, Lee and Palm Beach counties. To say that all of their exhibits were good would be simply stating the truth without embellishing it. The fountain of citrus was an especial attraction in the Highlands exhibit. Pineapples were a feature of the Polk and St. Lucie booths. Brevard's swastika of citrus fruit was attractively arranged. In addition to citrus and vegetables, Indian River pastures and dairies were featured. Broward featured ornamentals. The model farm layout worked up by County Agent Shealy was an especial attraction in the Hardee booth. Citrus by-products, such as citrus fruit juices and canned grapefruit, in the Sarasota exhibit called attention

to one of the state's industries which seems destined to occupy a more important place. In the Lee county exhibit the display of samples of 72 varieties of furniture wood was noteworthy.

As one spectator passed by the booth, he remarked that "Pasco County grows a little of nearly everything." The remark was prompted by the exhibit, which contained a great variety of products from citrus through general crops, vegetables, etc., to pecans. Two stuffed hens announced that "they were laying Pasco Brand eggs."

In addition to vegetables and citrus, Hillsborough County had attractive displays of strawberries and cigars, representing two of her important agricultural industries. Honey and crystallized fruits were especially good parts of the Volusia exhibit, which also contained a good display of vegetables, cane, and potatoes.

Two hams each weighing 52 pounds were outstanding in the Marion County exhibit, which contained a wide variety of products, including citrus, pineapples, vegetables, hay and general crops.

Alachua, Madison, Jefferson and Taylor counties showed excellent displays of hay crops, peanuts, pecans, meats, general crops, tobacco, etc. The little tung-oil exhibit in the Alachua booth showed something of one of that county's new crops. Jefferson county advertised itself as the "home of the papershell pecan."

"We sweeten the world," was the announcement of the Satsumaland exhibit, which contained sugar cane. This exhibit contained also meats, pecans, and sweet potatoes, as well as a few Satsumas.

In most of the county exhibits, the home demonstration agent's display of canned goods occupied the center, and it is well, for in nearly every case it was the center of attraction. In addition to the home demonstration exhibits in the various county booths, there was a special booth of the State Home Demonstration Department which contained many things of interest to the housewife. The evolution in the kitchen, with a model of an old fashioned kitchen, an arrangement of a present day kitchen with necessary conveniences and an indication of the kitchen of the future, was noteworthy. The theory of evolution was vindicated by the example of the evolution of a

sack into attractive aprons or children's dresses.

As usual, the part of the boys' club exhibit which attracted most attention was cotton.

The exhibit of vocational agriculture in the high schools contained

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such a variety of products that one would almost get confused in trying to keep up with them.

That the Negroes of the state are becoming proficient in agricultural work and the preparation of exhibits was easily seen on a trip through the Negro building. If the meat contained in the Jackson County Negro exhibit had been entered in the open competition, it would have come close to if not in first place.

The poultry show contained a larger number of entries of the usual high quality and wide variety. The livestock show, as usual, was the weakest part of the fair, although there were some good quality animals in the show.

### *Citrus Aphids Are Increasing; Prompt Control is Advised*

The freezes of the middle of January checked severely the threatened early infestation of citrus aphids, as it killed all tender foliage and most of the aphids starved to death, says J. R. Watson, entomologist of the Florida Experiment Station. But they are multiplying rapidly at the present time, producing (at Lake Alfred) an average of five to six young per day. These young reach maturity in a week or eight days.

It now seems probable that the first flush of growth on trees defoliated by the freeze is going to get by without much injury from aphids. But unless the growers take great pains to destroy the colonies now working on the young growth on defoliated trees, present indications point to a heavy infestation when the regular spring growth, including especially tangerines. The present flush of growth on defoliated trees will probably be hardened up about the time the blossoms appear and the aphids will migrate from these defoliated trees to the blossoming shoots and great damage to this year's crop, already much shortened by the freeze, is apt to occur.

Mr. Watson urges growers to destroy every aphid found on the young growth now putting out on defoliated trees. In a few cases on young trees this can be done by dipping the infested branches in a tobacco or derris solution. But on large trees the grower will have to depend upon spraying or dusting. If dusting is resorted to the grower must pick out a calm warm period. The temperature should not be below 60 degrees and any wind sufficiently strong to sway Spanish moss on trees will make spot dusting inefficient. Young

### THE CITRUS INDUSTRY

trees are best dusted under tents. Tents will not only enable one to dust any day in spite of the wind but will, on sunny days, also increase the temperature. Directions for making these tents will be furnished by the Experiment Station upon request. Growers are cautioned to be sure that the dust they buy is guaranteed to contain 3 percent of nicotine (7½ percent of "40 percent nicotine sulphate"). Growers can make this dust themselves by mixing in a barrel 3½ pounds of nicotine sulphate and 50 pounds of hydrated lime.

### Plant Crotalaria As Summer Cover Crop In Groves

Gainesville, Fla.—It is time for citrus growers to begin thinking about summer cover crops, and crotalaria has been found to be one of the best summer cover crops for citrus growers. Planting tests by the Experiment Station have shown that crotalaria can be planted any time up to mid-summer, and will still produce seed in the southern part of the state. However, it is best to have the cover crop in early and covering the ground in the grove during the hot months.

Crotalaria is a leguminous crop that makes a profuse growth and produces lots of green material to supply humus for the soil. It is not a forage crop, and is not relished by animals. Some animals will, however, eat one variety of it.

Crotalaria renders some protection to citrus groves from the pumpkin bug, as the bug prefers the crotalaria in preference to the citrus.

Mowing when the crotalaria is in full bloom is desirable. The mower blade should be set eight to ten inches high, leaving a high stubble from which a second growth will sprout and produce seed. If low mowing is practiced, a satisfactory second growth is not obtained and the plant will not reseed itself.

Crotalaria is satisfactory as a cover crop for pecan orchards and Satsuma groves. It is said to be a good honey plant.



### It's Not a Home till it's Planted!

Your home may be comfortable and modern in every detail— You may have the finest grove in the community and some of the richest truck land in the county, but— your place is not complete until you have beautified your home grounds.

Write for our descriptive Price List of Tropical Ornamentals. Ours is the largest collection in the State. Come and see us.

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*Citrus Fruits, Transportation*

## Another One Day Delay Case

Florida Shipper Gets Verdict

A decision of great interest to the fruit and vegetable shippers and receivers was rendered by the Civil Court of Records at Jacksonville on February 19th. The decision was in a suit of Chase & Company, large Florida shippers of fruits and vegetables, versus the Atlantic Coast Line Railroad, and involved a loss of market caused by twelve hours delay, thereby causing the shipment to miss one market at New York. The ruling of the court was that a twelve hour delay was unreasonable and it must be positively shown by the carrier that delay beyond the usual delivery was not due to negligence on its part, in order to be relieved from liability. The carrier argued that a sixth morning delivery from Florida points to New York was reasonable in 1920 and they produced witnesses who testified to that effect but it was shown by the evidence that fifth morning was the usual time of delivery and the court held this sufficient to cast the burden upon the carrier to explain delay and conclusively show it resulted from causes beyond its control. The case was handled for Chase & Company by Mr. Maguire and Mr. Wells of the firm of Maguire and Voorhis, of Orlando, Florida. Mr. Maguire and Mr. Wells argued to the court that the question was not whether a sixth morning delivery was reasonable but whether there was delay over the ordinary and usual delivery and that any such delay must be explained by the carrier. This view was approved by the court and verdict was directed.

Chase & Company also obtained a verdict in another case involving failure to promptly unload after arrival at the New York piers. The Railroad delivered the car at the piers on schedule but did not unload in time for the market. Chase & Company's attorneys argued to the jury that a delay of three hours in unloading was negligent handling and the jury so found, directing a verdict for the full amount of the claim plus interest. The two judgments amounted to around \$1,000.00 plus interest from 1920.

According to M. L. Cullum, Traffic Manager of Chase & Company, these decisions are of great importance to shippers and receivers. Chase & Company has always considered the carriers liable for damage account of missing one market, and the com-

### THE CITRUS INDUSTRY

pany has actively fought this question for their growers. Unquestionably, rates on perishables contemplate expedited service and when it is not given, the grower should not be made to suffer.

#### LINE HAUL RATE

#### REPORT UNFAVORABLE

Continued from page 16  
dations of the Examiner, the Commission is asked to find in their decision that the carriers are entitled to charge the same revenue for hauling 21,000 pounds of vegetables as for hauling 32,400 pounds of citrus.

This increase in the vegetable rates varies according to the point of origin and destination. The vegetable rates apply from 5 groups of origin in Florida the same as do the citrus rates.

As an example, the increase from Sanford to 17 representative markets ranges from \$16.80 to \$84.00 per car with an average to the 17 markets of \$41.25 per car. The increase from Orlando to the same 17 markets ranges from \$10.50 to \$75.00 per car with an average of \$33.97. The increase from Palmetto to the same 17 markets ranges from \$16.80 to \$88.20 with an average of \$41.60.

Testimony was presented at the hearing in behalf of the vegetable shippers in Florida showing conclusively that their rates in comparison with the rates from other territories were excessive and unreasonably high and that they were entitled to a material reduction. The Examiner in his report refers to the showing made by the shippers that the revenue per car mile on tomatoes, cabbage and carrots from Sanford, for example, to 9 of the principal markets are considerably greater than the present rates from Crystal Springs, Miss., to the same destinations; a similar showing was made with respect to tomatoes from representative points in Florida to representative destinations in comparison with shipments from Crystal Springs, Miss., Jacksonville, Texas, and San Blas, Mexico. Likewise, a comprehensive exhibit was presented showing the revenue per car in car miles on beets and cucumbers from Sanford as compared with Crystal Springs, Miss., Mobile, Ala., New Orleans and Sacramento, Calif., showing the rates generally to be considerably higher than from competing districts. However, as a result of the Examiner's conclusions and recommendations would have their rates further materially increased and thus add additional penalty and burden upon their ability to compete with vegetable markets in other territories over the handicap under

March, 1927

## Something

### NEW

The biggest forward step,  
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with citrus packing in the  
last dozen years—

### NEW Flexible Non-Bruise Picking Bag

Easy on fruit, easy on  
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opted by the foremost  
fruit packers everywhere.  
Cannot bruise the fruit or  
the picker.

**SEE A SAMPLE:** If you have not yet seen one, and are a packing house manager or do the buying, ask us to send you a sample bag on approval. Write us on your letterhead.

### Non-Bruise Picking Bag Company

519 East Amelia Avenue  
Orlando, Florida

March, 1927

which they are now suffering.

Florida agriculture faces a crisis, according to Mr. Robinson. The citrus shippers are not at all satisfied with the results of the Examiner's recommendation. While he proposed to give them a slight reduction in the rates based upon an increased minima, he still compells them to use the old antiquated basis of rates which was established many years ago when the production was but about 16 2-3% of the volume maintained during the 1923-24 season. It also forces them to pay a scale of rates which increases with the distance of the haul, whereas the California competition has one rate from Denver as far East as the Atlantic Seaboard, including Southern territory.

The vegetable shippers are simply astounded at the Examiner's recommendations. According to Mr. Robinson, they cannot conceive that the Inter-State Commerce Commission would attempt to approve the report as recommended.

"Counsel for the Growers and Shippers League," said Mr. Robinson, "is working on exceptions to the report of the Examiner to be filed with the Commission which will be stressed with all the emphasis possible later at the oral argument before the Commission.

"Unless the League and its counsel can successfully point out to the Inter-State Commerce Commission the unreasonableness and absolute injustice of the Examiner's recommendations, the vegetable industry in Florida is likely to be penalized to the extent of the excessive increases before cited.

"Citrus shippers, when the case is once closed on the Examiner's recommendation, will find that years will be necessary before the proper rate adjustments can be made.

"This crisis is by no means an exaggeration. Unless far more favorable results are obtained than are possible from the most wild interpretation of the Examiner's report, Florida producers and shippers will operate under an almost impossible handicap for years to come."

#### All the Same

Wife (after a telephone call)—That was a very close relative of mine, dear.

Hubby—That explanation is not necessary. All your relatives are close.

Boll weevils do not eat poison mixtures containing blackstrap molasses as readily as they do mixtures containing higher grades of syrup.

#### THE CITRUS INDUSTRY

Crotalaria, a legume introduced into Florida in recent years, has proved to be a splendid summer cover crop for citrus groves. Seed should be

Thirty-three

sowed in spring or early summer.

Take care of the springs pigs. They are going to be worth money.

### Successful Citrus Growers Know

that "A & G" Fertilizers give them better and bigger crops with increased profits. "A & G" Formulas are prepared by practical experts; the materials are genuine and specially imported; the mechanical mixing is perfected by modern machinery. Get A & G Fertilizers—the best on the market.

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#### THE CITRUS INDUSTRY

TAMPA, FLORIDA

# Citrus Fruits Pruning

Thirty-four

## Pruning of Frozen Citrus Trees

By T. Ralph Robinson, Bureau of Plant Industry, U. S. Department of Agriculture

Warnings against hasty action in pruning back citrus trees injured by cold have been sounded in the press and horticultural papers and these warnings are in the main justified. There is, however, a possibility that pruning may be put off to an extent that will delay the recovery of the tree and result in stunted and diseased new wood.

By all means, no pruning should be done until all danger of a late freeze is over and until new growth has started out from the uninjured wood. When this time is reached there is nothing to be gained, either with bearing or non-bearing trees, by leaving dead branches and twigs unpruned and there may be serious loss. Aside from the danger of the melanose or withertip fungus spreading from the dead wood to the new growth, the old dead wood seems to act in a distinctly unfavorable or even poisonous manner, often ascribed to "sour sap". For this reason pruning cuts should be made well back to sound healthy wood. These cuts should be made clean and close to a growing limb or sprout whenever possible. All such cuts of finger size and larger should be painted over. Where large limbs or trunks are exposed by severe pruning, they should be whitewashed or wrapped with burlap to protect them from sunscald.

If the removal of dead branches is delayed until the new sprouts are maturing their wood and are several feet long much injury will be done to this new growth, in getting rid of the prunings, and the job will be more costly than if done soon after the new sprouts appear. Without undue haste but with an eye to securing healthy new growth and a well shaped tree, pruning should receive prompt attention when the conditions are right.

## Farm Income Drops

In the years 1909-1913, before the great war, the income of the agricultural industry—which represented the labor of one-fourth of the workers and the use of one-fifth of the capital wealth of the country—amounted to one-sixth of the national income. These proportions were maintained with slight annual variations through 1919. In 1920 the income of

## THE CITRUS INDUSTRY

the agricultural industry fell below one-seventh and in 1921 to only one-twelfth of the national income. The improvement in agriculture has brought the income for farmers for the last two or three years up to about one-tenth of the national income. This is the situation at the root of the agricultural problem. The farmer asks only what is fair, and a return for his labor and capital that will make it worth his while to continue in the business of farming.—Renick W. Dunlap, Assistant Secretary of Agriculture.

The paper industry is to be developed in Alaska. The Forest Service of the United States Department of Agriculture is asking for bids on two lots of pulpwood in Alaska, each of five billion board feet. The contract for each lot calls for the establishment of a paper mill.

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Is yours for the asking.  
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OCKLAWAHA NURSERIES INC.  
"Pedigreed Citrus Trees"  
Lake Jem, Florida

FOR SALE CHEAP—Eleven acres high, rocky citrus land; 4 acres cleared with small house, and large nice bearing orange trees full of fruit. Nicely located near Altamonte Springs, Fla. For particulars write H. A. Lunquise, 41 N. W. 29th St., Miami, Fla.

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WANT TO SELL HALF INTEREST IN FIFTEEN ACRE SATSUMA BEARING GROVE ON HIGHWAY NEAR PANAMA CITY. ROBT. LAMBERT, OWNER. FOUNTAIN, FLA.

March, 1927

SATSUMA BUDWOOD from Bearing Trees Hills Fruit Farm, Panama City, Fla.

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FOR SALE—All varieties bananas and citrus trees. D. A. Nigels, Palm Harbor, Fla.

STRAWBERRY PLANTS. Send \$2.50 for 500 Missionary or Klondyke. \$4.50 per 1,000. Ready now. John Lightfoot, East Chattanooga, Tenn.

10-12t

RUNNER peanuts—Spanish peanuts Early speckled - Osceola - White Chinese and Bunch Velvet Beans. All varieties peas and Soybeans. Large or small lots. H. M. Franklin, Tennille, Georgia.

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